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Public Economics

Country Economics Department
The World Bank
December 1990
WPS 557

The New Fiscal Federalism in Brazil

Anwar Shah

Fiscal arrangements in Brazil severely constrain the federal government's ability to fulfill its mandate as a national government. Municipal governments, meanwhile, have more revenues than they need, encouraging fiscal mismanagement. Reform is urgently needed to counteract Brazil's fiscal imbalance.

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This paper — a product of the Public Economics Division, Country Economics Department — is part of a larger effort in PRE to reform public sector management in developing countries. It is one of a series of discussion papers prepared for the Intergovernmental Fiscal Relations Project of the Public Economics Division. Copies are available free from the World Bank, 1818 H Street NW, Washington DC 20433. Please contact Ann Bhalla, room N10-059, extension 37699 (117 pages).

Brazil is a three-tiered federation of 24 states, two federal territories, a federal district (the capital), and 4,300 municipalities. In 1989 less than half of all government spending was controlled by the federal government. Brazil's new constitution gave autonomous broad powers to states and municipalities on certain tax and spending functions, with municipalities independent of and coequal to states.

Shah reviewed and analyzed the intergovernmental fiscal relations in Brazil. He found that:

- Federal and state governments are involved in purely local functions in an uncoordinated fashion.

- The administration of sales tax by all three levels creates duplication and confusion.

- Administration of the general value-added tax by the state involves unresolved issues about tax crediting on interstate trade.

- The state and municipal revenue-sharing funds do not distribute revenues fairly and equitably.

- Conditional transfers are arbitrary and driven primarily by political considerations. Programs work at cross-purposes and the subjective nature of these transfers may be sending the wrong signals to lower levels of government about laxity in fiscal management.

- Revenue-sharing constrains the federal government's ability to fulfill its mandate as a national government and is conducive to fiscal mismanagement as local governments are shying away from raising revenues from property taxes and user charges. The municipal governments have more money than they need. The state governments also face a financial squeeze but it should be short-lived as they have access to the value-added tax, a dynamic source of revenues. The federal government's problem is structural. Its revenues fall far short of its spending needs.

- In short, existing fiscal arrangements have created a vertical fiscal imbalance.

Shah presents policy options to resolve these problems.

THE NEW FISCAL FEDERALISM IN BRAZIL

by Anwar Shah *

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* This is one of series of discussion papers prepared for the Intergovernmental Fiscal Relations project of the Public Economics Division. The project is directed by Anwar Shah. The author is grateful to Antulio Bomfim for research assistance and to Dr. Ricardo Luiz Santiago, former Deputy Minister of Planning, Brazil and currently Operations Policy Advisor, Inter-American Development Bank, Dr. Consentino Tavares, Director General, Ministry of Finance, Brazil, Jose Pio Martins, Director General, Ministry of Finance, the State of Parana, Diago Loudelle de Mello, IBAM, Rio, Brazil, and Drs. Johannes Linn, Bela Balassa, Peter Knight, Javad Shirazi, Martha de Melo, Gobind Nankani, Demetrios Papageorgiou, Robert Schneider, Ms. Helena Cordeiro and Antonio Estache, World Bank for helpful discussions.

1.0 PERSPECTIVES ON THE NEW FEDERALISM IN BRAZIL

Brazil represents a three-tiered federation of 24 states, two federal territories of Roraima and Amapa (to become states on January 1, 1991), a Federal District comprising the national capital of Brasilia, and 4300 municipalities. Brazil represents one of the most decentralized federations in comparison to other developing nations. In 1989, less than 50% of consolidated federal-state-local government expenditures were controlled by the federal government. The new Brazilian Constitution promulgated on October 5, 1988 has given autonomous broad powers to states and municipalities in certain tax and expenditure functions. Municipal governments in other federations are usually hand-maiden of state governments whereas the Brazilian constitution recognizes their independent and co-equal status.

A review of tax and expenditure assignment is thus critical to an examination of intergovernmental fiscal relations in Brazil. In the following, we review expenditure and tax assignment in Brazil; reflect on the conceptual basis for such assignment and present a comparative perspective on this issue drawing on the experiences of selected federations.

1.1 Expenditure Assignment: Theory and Practice in Brazil

1.11 Expenditure Assignment Under the 1988 Constitution.

Table 1 provides basic details on expenditure assignment in Brazil. The constitution recognizes three separate levels of government in the federation and delineates their responsibilities. Defense, foreign relations, currency, postal services, planning, nuclear energy, national highways and regulation of labour conditions, foreign and interstate commerce, finance, banking and insurance, commercial advertising, inter-state transport, telecommunications and data processing, energy, mining, employment insurance, social security, immigration and naturalization and native rights are the exclusive domain of the federal government. Health, education, culture, protection of environment and natural resources, hydroelectricity, agriculture, food distribution, housing, sanitation, social welfare and police are the joint responsibility of federal and state governments with the federal government setting standards and state governments having the responsibility for delivery of these services. Municipal

Table 1
EXPENDITURE ASSIGNMENT IN BRAZIL

Responsible Level of Government	Expenditure Category
Federal only	Defence Foreign Affairs International Trade Currency, banking Use of water resources National Highways Planning; regional and natural Postal service Police: federal and frontier areas Regulation of labor, inter-state commerce, telecommunications, inter-state transport, urban development, energy, mining, employment insurance, immigration, citizenship and native rights Social Security National Statistical system Guidelines and basis for national education
Federal-State (Shared)	Health Education Culture Protection of the environment and the natural resources Agriculture Food distribution Housing Sanitation Social welfare Police Hydroelectricity
State only	Residual powers i.e. any subject not assigned to federal or municipal levels by the Constitution.
Municipal only	Public transport (intracity) Pre-school and elementary education Preventive health care Land use Historical and cultural preservation

Source: NOVA CONSTITUICAO BRASILEIRA, 1988.

governments have been given the legislative authority on subjects of local interest to supplement federal or state legislation. Furthermore, they have been assigned responsibilities in public transport, pre-school and elementary education, health care, land use and historical and cultural preservation. Any subjects not specified by the Constitution have been reserved for state government legislation.

1.12 Conceptual Basis of Expenditure Assignment

Allocation of expenditure and tax functions to various member units is the most fundamental issue in a federation. Fiscal federalism literature argues that expenditure assignment must precede tax assignment. This is because tax assignment would in general be guided by expenditure requirements at different levels and these cannot be worked out in advance of expenditure assignment. This literature also provides broad guidance in delineating expenditure responsibilities. For example the so called "decentralization theorem" advanced by Wallace Oates states that "each public service should be provided by the jurisdiction having control over the minimum geographic area that would internalize benefits and costs of such provision" (Oates (1972), p.55).[1]

The above theory provides strong rationale for decentralized decision making on efficiency, accountability, manageability, and autonomy principles. It is argued that:

1. Local provision allows governments to cater better to the tastes and needs of local residents whereas central provision often results in more uniform provision;
2. Decision making is closer to the people for whom the services are intended. This induces more responsiveness to local concerns as well as more fiscal responsibility and efficiency of provision especially where financing of services are decentralized as well;
3. Eliminates multiple layers of jurisdiction; and
4. Enhances inter-jurisdictional competition and innovations in the provision of public services.

A decentralized system thus ensures consistency of level and mix of public services with voters' preferences as well as provides incentives for efficient provision of such services. The following economic considerations nevertheless warrant some degree of centralization or compensatory grants in the provision of services for which such factors are relevant.

a. Geographical variations of preferences with imperfect mobility: Note that the Tiebout mechanism of voting with one's feet requires small open area and imperfect mobility. In the presence of imperfect mobility, a decentralized mechanism would not ensure matching of public services with local preferences.

b. Spatial Externalities: Spatial externalities arise when benefits and/or costs of public services are realized by non-residents. In the case of benefit-spillout the jurisdiction providing the service does not consider the proportion of benefits of a public service accruing to non-residents and therefore would under-provide such service. The reverse result is obtained in the case of cost spillouts i.e. where the public service could be financed by exporting taxes to other jurisdictions. There are also public services whose benefits are considered national in scope such as defense and foreign affairs. As a corollary, these services would be best provided by the government at the highest level i.e. by the federal government.

c. Economies of scale: Certain services require service areas larger than a local jurisdiction for cost effective provision. Examples include transportation services, water and sewerage in a metropolitan area.

d. Administrative and compliance costs: It is generally agreed that a centralized administration leads to lower administrative and compliance costs associated with financing of public services.

There are also certain policy functions which can be carried best by the federal government. For example:

(i) Stabilization Policy: A stabilization policy cannot be carried out effectively by a local jurisdiction. Local pursuit of such a policy would lead to much of the gains being lost to outside jurisdictions. A monetary policy has little scope of being carried at a local level.

(ii) Redistribution Policies: Effective redistribution is possible only through programs which are national in scope. A local jurisdiction that attempts to carry out redistributive policies is likely to drive out the rich. The City of New York faced a fiscal crisis as a result of redistributive programs carried out in early eighties.

The above discussion suggests federal government be given exclusive authority in carrying out stabilization policies and providing public services whose benefits are national in scope (see Boadway 1980, 1989). The federal government also has a redistributive role which could be exercised through the tax and transfer system or through joint provision of public services such as education and health which primarily serve as "transfers in kind". The federal government also may be assigned a role in providing compensatory grants for spillout of benefits from state level provision of services. A similar role for each state is in order for spillout of benefits from local provision of services within their jurisdictions. All other services would be best provided by the local governments with federal and state governments having some role in defining minimum standards.

Table 2 provides a summary view of broad guidance provided by economic theory and discussed above. As shown by this Table, reasonably clear expenditure assignment emerges from the basic economic principles. The following paragraphs provide a commentary on the expenditure assignment in Brazil based on these guidelines.

1.13 Expenditure Assignment in Brazil and Implications For Efficient and Equitable Provision of Public Services

A comparison of Table 2 with Table 1 indicates that expenditure assignment done by the Constitution corresponds fairly closely to the expenditure assignment suggested by economic principles. Current practices in service delivery by various levels of government are at substantial variance from the Constitutional assignment. In the areas of education, health, urban transportation, recreation and culture, child and old age care and social assistance, all three levels are involved in an uncoordinated fashion leading to much confusion and chaos in service delivery.[2] Current difficulties in overlapping and duplication of functions in certain areas thus must be attributable to pre-1988 Constitution traditions.

Table 2
CONCEPTUAL BASIS OF EXPENDITURE ASSIGNMENT

Expenditure Category	Service Responsibility	Provision of Service	Comments
Defence	F	F	Benefits/costs national in scope
Foreign Affairs	F	F	"
International Trade	F	F	"
Environment	F	S,L	"
Currency, banking	F	F	"
Interstate commerce	F	F	"
Immigration	F	F	"
Unemployment Insurance	F	F	"
Airlines/Railways	F	F	"
Industry and Agriculture	F,S,L	S,L	
Education	F,S,L	S,L	
Health	F,S,L	S,L	
Social Welfare	F,S,L	S,L	
Police	S,L	S,L	
Highways	F,S,L	S,L	
Natural Resources	F,S,L	S,L	

Notes: F: Federal
S: State
L: Municipal-Local

For example in the area of education the current Constitution sees Federal government simply setting the norms and leaving the provision to state and municipal levels. Contrary to Constitutional stipulation discussed above Federal Government nevertheless continues to be involved in direct delivery of education services at secondary school, college and university levels and in an isolated instance in elementary education as well. Furthermore the Constitution gives local government exclusive mandate in the delivery of elementary education but the delivery of secondary and higher levels of education has been left open. Local provision of secondary education would provide incentives for allocative efficiency as well as encourage innovative learning programs. It is best for the federal government to have a hands off approach in these areas and the State governments to assume regulatory role by monitoring student achievement through standardized tests and by setting minimum service standards. Undergraduate education because of significant spillovers beyond local jurisdictions but presumably insignificant spillovers beyond state boundaries is a logical candidate for state level assignment. University education on the other hand is expected to have significant spillouts beyond state boundaries and therefore should be a joint responsibility of Federal and State levels. As envisaged by the Constitution, however, the provision of this service should be state responsibility with the federal government assuming a monitoring role and providing compensatory grants for benefit spillouts or to ensure minimum standards of such service across states.

Similar problems exist in current delivery practices for urban transportation. Urban corridors are constructed and maintained by all three levels and sometimes suffer neglect because of unclear responsibilities for maintenance and upkeep. Intra-urban bus services in some states are operated by the State. A decentralized system of urban transport provision would be more attuned to meeting local needs and to adjustments based on changing local conditions. Thus both federal and state governments have no clear role for intra-urban transportation provision issues. Their role should simply be confined to providing technical assistance, monitoring and setting service standards. In today's Brazil, federal government is often involved in direct provision of urban transportation network and services and this sometimes creates significant difficulties for local governments in their decisions to upgrade local services or modify existing networks.

Some purely local functions such as fairs, public markets, slaughterhouses are also being performed by federal and state governments in several municipalities. Electricity and telephones are provided by federal public utilities. Public provision of these essentially private goods needs to be reviewed. Responsibility for water and sewer which are generally recognized as local services was transferred from the municipal to the state level in 1967 in view of the assistance available to state governments through the National Sanitation Plan (PLANASA). This changeover resulted in substantial expansion of service to new towns but emphasis on cost recovery has precluded extension of these services to slum areas of larger cities and metropolitan areas.

In conclusion, constitutional assignment of expenditure function is broadly consistent with economic principles but a clear case can be made for bringing the practice or de facto assignment in conformity with the decentralization theme enunciated by the new Brazilian constitution.

1.2 TAX ASSIGNMENT : THEORY AND PRACTICE IN BRAZIL

1.21 The Theory of Tax Assignment

The division of revenue sources among federal and lower levels of government is being referred here as the 'tax assignment problem'. Once expenditure assignment has been agreed upon, tax assignment and design of transfers become critical elements in providing reasonable matching of expenditure needs with revenue means for various levels of government. Although tax assignment could be undertaken independently of expenditure assignment--a practice which is quite common in developing countries, yet the tradeoffs between the advantages of a centralized tax administration and decentralized provision of public services become more apparent when tax assignment takes into consideration pre-determined expenditure assignment. In such a situation over-dependence of lower levels of government on intergovernmental transfers with potentially distortionary effects on expenditure priorities could be avoided. Furthermore, in those grey areas where theoretical guidance on tax assignment is unclear, expenditure assignment can provide a powerful argument for assigning taxing responsibility to the government with greater need for additional revenues. Musgrave (1984) uses equity (consistency of revenue means with expenditure needs) and efficiency (minimizing resource cost) criteria and suggests the following broad principles in tax assignment;

i. Progressive redistributive taxes should be central;

ii. Taxes suitable for economic stabilization should be central; lower level taxes should be cyclically stable;

iii. Tax bases distributed highly unequally between jurisdictions should be centralized;

iv. Taxes on mobile factors of production are best administered at the centre;

v. Residence based taxes such as sales of consumption goods to consumers or excises are suited for states;

vi. Taxes on completely immobile factors are best suited for local level;

vii. Benefit taxes and user charges might be appropriately used at all levels.

Based on these principles, reasonably clear guidelines for assignment of revenue sources to various levels of government emerge. Table 3 provides a summary view of such assignment. The Table suggests that for certain taxes such as resource taxes or a value-added tax (VAT) base and rate determination and collection and administration could be assigned to different levels of government. By following this approach both inter-jurisdictional equity and efficiency of tax administration and compliance could be achieved. It should be noted that the theory contravenes the advice sometimes offered by international agencies to developing countries that local taxes on wage and capital income should be instituted. With factor mobility, bases for such taxes would be subject to erosion. Also, such a regime encourages tax competition among various jurisdictions.

1.22 Tax Assignment in Brazil

Table 4 provides an overview of existing tax assignment in Brazil. Federal government assumes exclusive responsibility for the taxes on income, payroll, wealth (large fortunes), foreign trade, banking, finance and insurance, rural properties, hydroelectricity and mineral products. It has partially overlapping responsibility with state and local governments for taxation of industrial products. The

Table 3
CONCEPTUAL BASIS OF TAX ASSIGNMENT

Tax	Determination of Base	Determination of Rate	Tax Collection & Administration	Comments
Customs	F	F	F	International Trade
Income Tax	F	F,S	F	Redistributive
Estates & Gifts	F	F,S	F	Redistributive
Corporate Tax	F	F,S	F	Mobile Factor
Resource Tax	F	F,S	S	Unequally distributed
Retail Sales	S	S	S	Higher compliance cost
	F	S	F	Harmonized, lower compliance cost.
VAT	F	F,S	F,SC	
Excises	S	S	S	
Property tax	S	L	L	
User charges	F,S,L	F,S,L	F,S,L	

Notes: F: Federal
S: State/Province
L: Municipal/Local
SC: The Council of States

Table 4
TAX ASSIGNMENT IN BRAZIL - 1990

Revenue Source	Responsibility Base	Rate	Admn.	1993 Disposition of Revenues (%) Federal	States	Municipalities
Federal (F):						
Income Tax (IR):				53.0	24.5(a)	22.5
Personal	F	F,S	F			
Corporate	F	F	F			
Payroll Tax (CSE)	F	F	F	33.3	66.7	0.0
Large Fortunes (Wealth) Tax (IGF)	F	F	F	100.0	0.0	0.0
Import Tax (IM)	F	F	F	100.0	0.0	0.0
Export Tax (IE)	F	F	F	100.0	0.0	0.0
Tax on Financial Operations and Insurance (IDF/IOC)	F	F	F	100.0	0.0	0.0
Rural Property Tax (ITR)	F	F	F	50.0	0.0	50.0
Tax on Industrial Products (IPI)	F	F	F	43.0	32.0(b)	25.0
Hydroelectricity Tax	F	F	F	5.0	45.0	50.0
Mineral Products Tax	F	F	F	5.0	45.0	50.0
States (S)						
General value-added tax (ICMS)	S	S	S	0.0	75.0	25.0
Inheritance and gift taxes (CMD)	S	S	S	0.0	100.0	0.0
Motor Vehicles Registration Tax (IPVA)	S	S	S	0.0	50.0	50.0
Supplementary Capital Gains Tax	S	S	S	0.0	100.0	0.0
Municipalities (M):						
Services Tax (ISS)	M	M	M	0.0	0.0	100.0
Urban Property Tax (IPTU)	M	M	M	0.0	0.0	100.0
Tax on Retail sales of fuels except diesel (IVVCLG)	M	M	M	0.0	0.0	100.0
Property transfers (ITBI)	M	M	M	0.0	0.0	100.0
Frontage tax (Special assessment levy)	M	M	M	0.0	0.0	100.0

Source:
1. NOVA CONSTITUICAO BRAZILEIRA 1988, Sistema Journal do Brasil, Article VI, "Da Tributacao e do Orcamento", pp.67-78.
2. Lei do Senado No. 165 (11/89)
3. Lei Complemantar No. 104, Camara dos Deputados.
4. Projeto de Lei Complementar No. 104-A, 1989.

Notes:
(a) Includes 3% to finance programs to be administered by Development Banks of the North-East, North and Center-West regions.
(b) Includes (a) plus an additional 10% of IPI as compensation to exporting states for loss of revenues from ICMS on account of exports.
(c) The Union must apply at least 18%, states 25%, and municipalities 25% of all tax revenues and transfers on education.

federal government allows states to levy supplementary rates upto 5% on the federal bases for personal and corporate incomes.

The mainstay of state governments revenues is the general value-added tax on goods and services. This tax is administered by the Council of states having finance ministers of all states including the Federal District as its members. Any changes in the tax base or rates must be presented by individual states for approval by the Council. The Council has resisted changes in tax rates quite strongly but has acceded to requests from various states for exempting certain commodities/services from the tax base. Inter-state tax credit issues for the value-added tax continue to take a great deal of the Council's time. The states have also access to taxation of inheritance and gifts and motor vehicles registrations. States derive 72% of their revenues from these three taxes.

Municipalities are empowered to levy taxes on services, urban properties, retail sales of fuels except diesel; property transfers (intervivos) and special assessments (frontage). Municipalities raise 18% of revenues from these sources.

1.23 Implications For Tax Policy and Administration

A comparison of Table 3 with Table 4 shows that the tax assignment done by the new Constitution in Brazil is broadly consistent with economic principles enunciated above. Some problems remain, nevertheless. These problems are mainly in the area of sales taxes. Tax bases for the federal manufacturer level sales tax on industrial products and the state general value-added tax (ICMS) partially overlap but are administered separately by the two levels. Similarly tax bases for ICMS and local tax on services (ISS) overlap but are administered in an uncoordinated fashion. Brazil is unique in being the only country with a subnational VAT called ICMS. While tax collection of ICMS is in the hands of individual states, tax rates and base is determined by the Council of States. This should in principle result in tax harmonization as well as a clearing house for interstate VAT tax credit claims. In practice, the Council has been quite receptive to giving individual states some flexibility in defining own tax bases for ICMS. This has the potential of eliminating uniformity of the ICMS base over time. Also resolution of interstate ICMS tax credit issues continue to elude the Council.

It would be desirable to consolidate IPI, ICMS and ISS into a single tax administered by the federal government and proceeds shared with state and local governments based on a formula which allocates revenues to the three levels in roughly the same proportion as their current intakes and to individual units based on origin principle. Tax base determination for harmonization purposes should be the responsibility of the federal government whereas states and municipalities, if they so choose, could levy supplemental rates.

There is no specific advantage in federal government administering the rural property tax (ITR). ITR is more appropriate revenue source for state and local levels. Any rural property under the jurisdiction of a municipality should be subject to taxation by the municipality concerned. State level governments on the other hand should be responsible for both the administration and final disposition of revenues on account of this tax in unincorporated areas within state boundaries.

1.3 Vertical and Horizontal Fiscal Imbalances

Vertical fiscal imbalance refers to the mismatch between revenue means and expenditure needs at various levels and the horizontal imbalance refers to inconsistency between revenue raising ability and fiscal needs of governments at the same level in a federation. These issues are discussed in the following sections.

1.31 Vertical Fiscal Imbalance in Brazil

Some degree of mismatch between revenue means and expenditure needs at various levels is common to all federations. Efficiency in tax administration for certain revenues requires central administration and this in itself contributes to the vertical imbalance problem. Thus after expenditure and tax assignment have been completed, revenue sharing and transfers are frequently used to correct for any imbalances that result from assignment of responsibilities. However, revenue sharing and transfer mechanisms due to difficulties in design or due to conflicting claims of relative needs by various levels of government may not fully resolve this issue. In Brazil, constitutional transfers attempt to address this issue. Tables 5 and 6 quantify revenues at the disposal of various governments before and after revenue sharing impacts. With the new tax assignment and transfers, federal governments historical position vis-a-vis state and local governments has significantly deteriorated. States now command one of the most dynamic revenue base (ICMS) and municipalities are guaranteed a large share of federal and state revenue collections. While a precise calculation of the magnitude of the squeeze on the big brother put by the new fiscal arrangements must await more careful analysis, Table 7 presents some rough estimates to outline the broad picture of vertical imbalance that characterizes Brazil of today. According to these calculations, federal and state governments' revenue means significantly fall short of their expenditure needs. The opposite situation holds for municipal governments. The table shows that federal government would be (if it is already not) in dire straits if it continued to follow in future as in past years a broader interpretation of its responsibilities. State level governments as a whole face some difficulties now but these may not persist in the long run in view of expected growth of ICMS revenues. Municipal governments in Brazil, on the other hand, should be the envy of all governments in developing (or even advanced nations) world.

So far we have concerned ourselves with reaching broad judgements on vertical balance in Brazil alone. It would be interesting to reflect how Brazil compares to advanced country federations. Unfortunately, there are no satisfactory measures at our disposal to reflect on this question. Three measures proposed by Hunter (1977) and previously used by Bird (1986) and others attempt to measure the degree of control exercised by the federal government over lower levels of governments. These measures are termed as coefficients of vertical imbalance. The way these measures are structured suggests that a coefficient of zero would indicate absolute federal control over state and local governments and a coefficient of one would indicate that lower levels of governments are absolutely autonomous in their decision making. Note that while a high value on this coefficient is desirable, a value of one has never been a goal in any federation. A value closer to but certainly less than one would also be consistent with the assignment principles enunciated earlier. Table 8 presents three calculations: one considering conditional transfers and borrowing only, a second one by incorporating unconditional transfers and a third one by bringing in shared taxes as well. On the first two coefficients, Brazil does better than selected advanced federations reported there. On the third coefficient, considering

Table 5
BRAZIL: TAX REVENUE COLLECTIONS BY LEVEL OF GOVERNMENT

Year	Shares (%)			
	Union	States	Municipalities	All
1957	48.1	43.3	8.0	100.0
1958	53.3	41.2	7.5	100.0
1959	19.6	49.6	6.4	100.0
1960	49.5	44.5	6.0	100.0
1961	49.5	44.6	5.9	100.0
1962	49.2	44.5	6.3	100.0
1963	51.0	42.5	6.5	100.0
1964	48.8	44.8	6.5	100.0
1965	50.7	42.5	6.8	100.0
1966	51.3	41.4	7.3	100.0
1967	15.8	49.4	4.8	100.0
1968	51.5	44.7	3.8	100.0
1969	53.7	42.7	3.7	100.0
1970	54.4	41.9	3.7	100.0
1971	56.4	40.0	3.6	100.0
1972	58.3	37.8	3.8	100.0
1973	58.5	37.7	3.8	100.0
1974	59.8	36.9	3.8	100.0
1975	59.0	37.0	4.1	100.0
1976	62.3	33.1	4.6	100.0
1977	60.9	34.0	5.2	100.0
1978	58.2	36.1	5.7	100.0
1979	58.3	35.9	5.9	100.0
1980	58.7	36.2	5.1	100.0
1981	58.2	36.7	5.1	100.0
1982	57.2	37.6	5.2	100.0
1983	57.8	37.0	5.2	100.0
1984	56.9	38.6	4.5	100.0
1985	57.6	38.3	4.1	100.0
1986	53.5	42.2	4.3	100.0
1987*	54.2	41.6	4.2	100.0
1988*	47.1	49.4	3.6	100.0

* Preliminary data

Source: MINIFAZ/SEF unpublished data.

Table 6
BRAZIL: FINAL DISPOSITION OF REVENUES BY LEVEL OF GOVERNMENT

Year	Revenue Shares			
	Union	States	Municipalities	All
1957	42.7	46.0	11.3	100.0
1958	45.7	44.7	9.5	100.0
1959	43.3	47.9	8.9	100.0
1960	43.2	48.2	8.5	100.0
1961	41.8	49.7	8.6	100.0
1962	39.6	48.9	11.5	100.0
1963	41.9	46.0	12.0	100.0
1964	39.6	48.5	11.9	100.0
1965	39.0	48.1	12.9	100.0
1966	40.6	46.3	13.1	100.0
1967	36.9	45.2	17.9	100.0
1968	40.6	42.6	16.9	100.0
1969	45.8	39.8	14.4	100.0
1970	45.7	39.6	14.7	100.0
1971	47.7	38.4	13.9	100.0
1972	49.7	36.5	13.8	100.0
1973	49.1	37.1	13.7	100.0
1974	50.2	36.2	13.6	100.0
1975	50.3	36.0	13.7	100.0
1976	51.4	34.4	14.3	100.0
1977	50.2	34.8	15.0	100.0
1978	47.3	36.7	16.0	100.0
1979	47.5	36.3	16.2	100.0
1980	49.3	35.5	15.2	100.0
1981	49.2	34.8	15.9	100.0
1982	48.0	35.7	16.3	100.0
1983	48.4	35.2	16.4	100.0
1984	46.8	36.5	16.7	100.0
1985	44.7	37.5	17.8	100.0
1986	39.5	40.7	19.9	100.0
1987	42.5	38.6	18.8	100.0
1988*	33.4	50.7	15.9	100.0
1993**	36.5	40.7	22.8	100.0

* Preliminary data
** Estimate

Source: MINIFAZ/SEF Unpublished data

Table 7
VERTICAL IMBALANCE IN BRAZIL

	Revenue Share [a]	Expenditure Share [b]	Surplus/ Deficiency [c]
Federal	36.5	43.4	- 6.9
States	40.7	43.0	- 2.3
Municipalities	22.8	13.6	+ 9.2
All levels	100.0	100.0	0.0

Notes:
a. Final disposition of all revenues based on a fully phased in system of constitutional transfers in 1993.

b. Actual 1988 expenditures

c. Ignores borrowing.

Table 8
COEFFICIENTS OF VERTICAL BALANCE FOR SELECTED FEDERATIONS

Country	V_1	V_2	V_3
Australia	0.68	0.35	0.55
Canada	0.79	0.71	0.80
West Germany	0.84	0.82	0.85
United States	0.81	0.81	0.85
Brazil (a)	0.93	0.89	0.83
(b)	0.91	0.87	0.76

Notes:

$V_1 = 1 - (S_c+B)/E$

$V_2 = 1 - (S_u+S_c+B)/E$

$V_3 = 1 - (S_u+S_c+B+T_s)/E$

Where S_c = Federal conditional transfers to states
s_u = Federal unconditional transfers to states
B = Net borrowing by states
E = States expenditures
T_s = Shared Taxes

(a) for states only
(b) for the consolidated State-Local public sector.

Source: (1) Brazil 1988, this report.
(2) For other countries, six year averages based on data for 1970s. See J.S.H. Hunter, (1977) Federalism and Fiscal Balance, Canberra: Australian National University, Center for Research on Federal Financial Relations.

federal-state sector only, Brazil is ahead of Australia and Canada but closely behind USA and West Germany. Note that calculations for selected advanced federations are quite dated and somewhat different values are expected to be obtained based on more recent data especially for Canada in view of its significant decentralization experience of the 1980s. The new data is however unlikely to change Brazil's relative position in this matrix.

1.32 Horizontal Fiscal Imbalance in Brazil

Brazil is a large country with very diverse economic opportunities across its vast landscape. Per capita income in Rondonia, one of the poorest states is only 12% of per capita income in Sao Paulo, the richest state in the Union (see Table 9). Further, per capita income in the north and northeast regions of the country is less than one-half of the national average. Regional equity issues have, therefore, dominated the agenda of all governments in its recent history. The federal government uses its tax, transfer and expenditure policies in an attempt to reduce regional disparities in public services provision. The overall impact of the federal government as shown in Table 10 is strongly redistributive. Its net impact is negative in the South and Southeast (the have-regions) and positive in the north, northeast and centre-west regions (the have-not regions). Interstate equalization due to lack of any explicit standard of equalization in current federal policies remains an elusive goal. The net impact of the federal government on the state of Para with 1988 per capita income of NCz$266 was NCz$0.04 as opposed to NCz$52.31 in Acre, a state with about the same per capita income. Total per capita expenditures of states also show a great deal of disparity as shown in Table 9. The issues concerning equalization of fiscal capacity will be taken up later under transfers.

1.4 Brazil In Relation to Other Federations: An Impressionistic View

Earlier sections took issue with the current expenditure and tax assignment in Brazil and reflected upon their implications for vertical and horizontal fiscal imbalances in the union. Problems of the sort discussed earlier, however, are not germane to Brazil alone and are a creation of political

Table 9
AN ECONOMIC PROFILE OF BRAZILIAN STATES

Federal Unit	MANUFAC V.A. 1984 per capita (NCz$)	GDP 1988 per capita	POPULATION 1988 thousands	POP DENSITY 1988 (people/sq.k	TOTAL FEDERAL TRANSFERS (per capita) 1988 Tax	Other (NCz$)	Total	EXPEND 1988 current NCz$ per capita	OWN REVENUES 1988 (per capita)	OWN REVENUES/EXPENDITURES 1988 (CURRENT NCz$)
Rondonia	0.17	128.74	1019.2	4.28	18	79	96			
Acre	0.06	266.51	396.5	2.58	49	45	94	122.79	26	21.15%
Amazonas	0.87	502.98	1895.5	1.21	12	10	21	95.24	75	79.09%
Roraima	0.04	286.01	113.1	0.50	123		123	368.46	307	83.33%
Para	0.19	268.72	4724.4	3.79	9	5	14	31.23	23	74.22%
Amapa	0.11	254.14	240.2	1.69	78		78	227.34	156	68.82%
NORTH	0.34	303.23	8388.9	2.35	16	17	33	56.39	28	50.01%
Maranhao	0.05	154.73	4970.4	15.08	9	10	19	34.02	28	82.80%
Piaui	0.07	136.42	2567.4	10.15	10	12	22	36.64	13	36.72%
Ceara'	0.19	234.74	6239.4	42.33	7	6	13	53.28	43	81.23%
R Grande Nor	0.17	260.84	2236.2	42.06	12	9	21	67.38	26	38.73%
Paraiba	0.17	203.22	3152.6	58.43	9	7	16	47.81	26	55.15%
Pernambuco	0.38	345.54	7114.6	70.43	6	8	14	48.76	35	71.40%
Alagoas	0.29	271.54	2342.3	80.47	10	8	18	41.05	20	48.37%
Sergipe	0.25	279.12	1369	62.62	18	12	30	74.51	47	63.41%
Bahia	0.43	365.96	11304.4	19.94	6	4	10	62.35	47	75.30%
NORTHEAST	0.27	276.57	41296.3	26.54	8	7	15	51.99	36	68.74%
Minas Gerais	0.68	599.29	15345.8	26.16	4	3	7	89.72	89	98.95%
Espirito San	0.45	561.99	2429.4	53.12	5	9	14	58.97	49	82.88%
Rio de Janei	0.78	969.54	13556.1	310.54	2	3	5	98.20	65	66.32%
Sao Paulo	2.20	1069.45	31651.5	127.50	2	1	3	135.43	116	85.41%
SOUTHEAST	1.45	913.82	62982.8	68.14	3	2	5	113.33	96	84.41%
Parana	0.62	666.12	8732.3	43.81	3	4	7	66.63	47	71.12%
Santa Catari	1.14	718.53	4311.3	45.23	4	5	9	90.41	84	92.37%
R Grande Sul	1.15	890.36	8888.5	31.67	3	3	6	103.05	92	89.70%
SOUTH	0.94	767.30	21932.1	38.12	3	4	7	86.06	73	84.52%
M Grosso Sul	0.16	586.91	1714.5	4.80	6	12	17	109.49	68	61.76%
Mato Grosso	0.18	289.73	1629.3	1.81	10	15	25	125.48	76	60.23%
Goias	0.19	359.57	4740.4	7.68	6	5	11	73.05	42	57.04%
Distrito Fed	0.14	838.52	1743.3	300.87	3	75	78	188.81	114	60.15%
CENTER WEST	0.17	472.61	9827.5	5.22	6	20	26	108.64	65	59.44%
BRAZIL	0.88	643.87	144427.6	16.97	5	6	11	88.02	69	78.40%

Sources: IBGE - Anuario Estatistico do Brasil 1989
MINIFAZ/STN/SAFEM
MINIFAZ/SEF
GDP: estimated based on data extracted from "State and Local Finance - Public Policy in Brazil" (June 89), by Remy Prud'homme

Table 10
BRAZIL: NET IMPACT OF FEDERAL GOVERNMENT ON STATES - 1988

CURRENT NCz$ PER CAPITA

Federal Unit	Population (thousands)	Federal Budgetary Revenues	Federal Government Expenditures	Net Impact of Federal Government
Rondonia	1,019.2	8.64	71.90	63.26
Acre	396.5	6.63	58.94	52.31
Amazonas	1,895.5	30.85	23.74	-7.10
Roraima	113.1	22.53	169.95	147.43
Pará	4,724.4	14.14	14.18	0.04
Amapa	240.2	15.90	91.00	75.11
NORTH	8,388.9	17.05	29.77	12.71
Maranhao	4,970.4	3.49	14.56	11.06
Piaui	2,567.4	5.37	16.97	11.60
Ceara'	6,239.4	9.63	17.78	8.15
R Grande Nor	2,236.2	8.75	23.12	14.37
Paraiba	3,152.6	6.57	18.81	12.23
Pernambuco	7,114.6	23.07	33.15	10.08
Alagoas	2,342.3	8.47	17.54	9.07
Sergipe	1,369.0	12.34	27.28	14.94
Bahia	11,304.4	19.28	12.46	-6.82
NORTHEAST	41,296.3	13.33	19.20	5.88
Minas Gerais	15,345.3	31.31	12.12	-19.19
Espirito San	2,429.4	38.68	12.56	-26.12
Rio de Janei	13,556.1	118.58	239.48	120.90
Sao Paulo	31,651.5	119.90	9.31	-110.59
SOUTHEAST	62,982.8	94.90	59.66	-35.24
Parana	8,732.3	35.33	9.23	-26.09
Santa Catari	4,311.3	30.23	11.00	-19.22
R Grande Sul	8,888.5	43.06	40.52	-2.54
SOUTH	21,932.1	37.46	22.26	-15.20
M Grosso Sul	1,714.5	10.88	13.75	2.87
Mato Grosso	1,629.3	11.68	19.02	7.34
Goias	4,740.4	10.69	12.72	2.03
CENTER WEST	8,084.2	10.93	14.21	3.28

Sources:
- Balancos Gerais da Uniao - 1988 (vol II p 34)
- Anuario Estatistico do Brasil 1989: Poputation (page 75)

Notes:
- Center West region data exclude the Federal District (DF).
- Federal Expenditures include all the intergovernmental transfers recorded in the Balancos Gerais da Uniao.
  NET IMPACT= FEDERAL EXPENDITURES - FEDERAL REVENUES

alliances in any federation. The following sections present a review of federal system in selected countries to make an impressionistic evaluation of the Brazilian system.

1.41 The Practice of Federalism in Selected Countries

USA: USA has a 3-tier system with states as the weakest link traditionally in the system. In federal-local fiscal relations states are often by-passed. The intrusive role of the federal government has largely been the result of urban and racial problems of the 1960s and dominance of state legislatures by rural interests. Tax and expenditure assignment in the U.S. is not consistent with the economic principles enunciated earlier. Other than taxes on international trade, exclusively reserved for the federal government and property taxes for state and local levels, all other tax fields are open to all levels of government. Federal, state and local governments have overlapping and uncoordinated personal and corporate income tax administration. Expenditure assignment is also not clearly delineated. Defense, foreign affairs and space administration, foreign and interstate commerce, the postal service, coinage, weights and measures, patents and copy rights and crimes against the United States are reserved for the federal government. In housing, education, transportation, and social welfare, all three levels are involved to varying degrees. Federal government gets involved in such local functions as fire protection, pothole repair, rat control, urban transit, local libraries and museums, and zoning regulations as a result of pork-barrel politics. Federal government often exercises strong control over local priorities through carrot (specific purpose transfers--in early 1980s there were 492 federal programs) or stick (court ordered racial integration of school pupils and teachers leading to a decay in schooling in inner cities; highway speed limits; withholding of federal highway funds from states not raising the drinking age to 21). The hallmark of the U.S. federal system is diversity, a "fend for yourself federalism" and a "jungle for tax administration". The efficiency costs of such a system are large which only an advanced nation like the U.S. could afford. Major progress to reform this system was made during Carter and Reagan years.

AUSTRALIA: Australia has a two-tiered highly centralized system. The centre emphasizes uniformity of public services across the nation and uses conditional grants to achieve that purpose. Tax administration and collection is primarily central (80% of revenues). Local governments are handmaiden of states but are given reasonable autonomy in local service delivery. The Commonwealth has sole responsibility in defense, trade, immigration, external affairs, social security and employment. States are responsible for education, health and social services, transport, railways, electricity and water. The federal government nevertheless exercises strong influence in these areas through conditional transfers. In tax assignment, customs and excises are reserved for the Centre and concurrent responsibilities are assigned in all other areas. One half of customs proceeds are mandated for states. The Uniform Taxation Act of 1942 eliminated any role for states in income taxes and subsequent court rulings closed sales and excise taxation fields to states. State-Local governments are responsible for 50% of the total outlay of the public sector but raise only 17% of revenues.

CANADA: Canada has a two-tiered highly decentralized system. In 1988, 59% of total expenditures were undertaken at the state-local level. Tax and expenditure assignment are transparent. Tax assignment is overlapping but harmonized. Expenditure assignment is as follows:

Federal: money, banking, trade, airlines, railways, foreign affairs, defense, unemployment insurance.

Federal-Provincial: Pensions, immigration, agriculture, industry.

Provincial: Education, health, social welfare, police, natural resources and highways.

WEST GERMANY: The Upper House of the Parliament is called the Council of States (BUNDESRAT). State ministers or their deputies are represented on this council and vote at the direction of their governments. This provides a check to any centralizing tendency in the federation. The expenditure assignment is as follows:

Federal: defense, foreign affairs, immigration, railways, air transport, post office.

Concurrent: public welfare, regulation of commerce, industry, banking, insurance and labour relations, promotion of social responsibility, public roads and shipping. Note that all concurrent responsibilities are carried out by states (Laender).

States: Education, culture and residual powers.

Tax Assignment: Federal government has exclusive authority over customs and federal monopolies (alcohol etc.) and priority over remaining taxes. Taxes are primarily collected by the Centre and then shared with the states and local governments based on agreed percentages.

MEXICO: Mexico is a highly centralized federation. 80% of public expenditures are controlled by the central government. In addition to the usual functions of a central government (defense, justice, external affairs, commerce and finance), the federal government in Mexico assumes responsibilities for functions which are allocated to other levels of government in other federations such as health and education. States are responsible for public transport and infrastructure expenditures. States have no own source revenues and solely depend upon federal transfers (18.1% of federal revenues are transferred and distributed 50% on a per capita basis and the remaining 50% based on historical shares). The design of these transfers are creating certain anomalies in tax administration. For example, in 1988, several states showed net negative VAT collections. Credit vouchers issued far exceeded collections.

1.42 An Impressionistic Evaluation

Table 11 presents a bird's eye-view of selected federal systems reviewed earlier. The table suggests that Brazil compares quite well to other federations on decentralization indicators. It nevertheless can learn a great deal from other federations in designing transfers. Of the countries reviewed here, Canada and West Germany offer two alternative neat models of a federation. The former emphasizes diversity in public services with minimum standards achieved by tax harmonization and transfers. The latter emphasizes uniformity in public services achieved through rational expenditure

TABLE 11
FEDERAL SYSTEMS - AN "IMPRESSIONISTIC" EVALUATION

Selected Indicators	Tax Separation		Tax Overlapping		Tax Sharing	
	Australia	Mexico	Canada	United States	West Germany	Brazil
National Unity	Strong	Strong	Fairly strong	Strong	Strong	Strong
State Influence on Federal Policy-makers	Fairly strong	Weak	Strong	Fairly weak	Strong	Strong
State Government Constitutional Status	Strong	Weak	Fairly strong de jure; very strong de facto	Fairly weak	Strong	Strong
Actual State Control of Local Government	Strong	Strong	Strong	Varies from fairly strong to fairly weak	Strong	Weak
Range of Local Goverment Responsibilities	Limited	Limited	Fairly extensive	Extensive	Limited	Extensive
Local Government Influence on State Policy-makers	Weak	Weak	Fairly strong	Fairly strong	Weak	Strong
Local Government Influence on State Policy	Weak	Weak	Fairly strong	Fairly strong	Weak	Strong
Local Government Influence on Federal Policy	Weak	Weak	Weak	Fairly strong	Weak	Very strong
The Character of Fiscal Federalism	Two-tiered; centralized	Three-tired; centralized	Two-tiered; decentralized	Three-tiered unstructured	Two-tiered integrated	Three-tiered decentralized
Federal-State Intergovernmental Transfers	Important; emphasis on conditional grants	Important	Important; emphasis on unconditional grants	Important; Emphasis on conditional grants	Unimportant Emphasis on tax sharing	Important
Federal/Interstate Equalization Performance	Very strong; revenue and expenditure disparities reduced substantially.	Weak	Strong; revenue disparities reduced substantially.	Very weak	Strong; revenue and some expenditure disparities reduced substantially	Weak
State Tax Performance	Fairly weak	Weak	Strong	Fairly strong	Fairly strong	Strong
Local Government Fiscal Independence	Fairly strong	Weak	Fairly strong	Fairly strong	Weak	Weak

Selected Indicators	Tax Separation		Tax Overlapping		Tax Sharing	
	Australia	Mexico	Canada	United States	West Germany	Brazil
Equalization Formula	Fed.-state Explicit	Implicit & piecemeal	Fed.-State Fiscal Equalization	Implicit and piecemeal	Explicit and complex	Implicit and piecemeal
State tax base conformity	Yes	No	Yes	No	Yes	No
State tax rate uniformity	Yes	No	No	No	Yes	Yes
Single tax collection and admin.	Yes	No	Yes	Yes	Yes	No
State-Local revenues more or less match responsibility	No	Yes	Yes	Yes	Yes	No

Source: Some data for this table are extracted from a Table prepared by John Shannon, Washington, D.C. ACIR, 1980 entitled "Rating Federal Systems - An Impressionistic Evaluation).

assignment and tax sharing arrangements. Smaller developing countries like Sri Lanka could benefit from the German model whereas large and diverse countries like Brazil, India, Mexico and Pakistan have much to learn from the Canadian model. Interestingly, U.S. reforms in recent years have also moved it in the direction of a Canadian style two-tiered system.

1.5 Conclusions

Fiscal federalism issues have been more thoughtfully addressed in Brazil than any other developing country. The New Constitution makes a reasonably clear assignment of expenditure and revenue assignment. This assignment is also broadly consistent with economic principles discussed in this paper. Some problems nevertheless remain. De facto expenditure responsibilities are not consistent with the constitutional intent. The tax sharing arrangements have favoured the municipal sector at the expense of the federal government. The federal government is facing a major squeeze while municipalities are reducing own tax efforts due to generous availability of funds through tax sharing. As the fiscal pressures on the federal government mount, it is showing willingness to discuss expenditure turnbacks on a program by program basis. It is expected that by 1993, much of the kind of federal involvement that is criticized here would have vanished due to revenue constraints. The federal government is well advised to move in this direction sooner.

In the area of tax assignment, ICMS (VAT) administration has been handed over to the States Council which contrary to principles enunciated here allows states some flexibility over its coverage in their jurisdictions. Interstate trade is causing a major havoc with the ICMS administration with energy producing states facing a major crunch on their revenues (ICMS is on the final sales of energy only). Tax bases for IPI, ICMS and ISS somewhat overlap but are administered by three different levels of government. Further, rural property tax (ITR) which is more suitable for administration by state governments is currently a federal responsibility.

The following reform options are suggested to deal with these issues:

1. Immediate turnback of direct federal involvement in functions of purely local nature such as primary and secondary education, urban grading, bridges, zoning etc. Further,

administration of health and education should be a state responsibility. Therefore, the roles of federal ministries of health and education be reduced to setting minimum standards and providing per capita block grants to induce compliance.

2. The three sales taxes, IPI, ICMS and ISS be combined into one tax to be administered by the federal government on behalf of state and local governments. Thus proceeds from the tax be shared by the three levels in proportion to their current intake from this source.
3. The administration of rural property tax be turned over to the state level.
4. The revenue sharing and transfer programs be restructured as discussed in the section on intergovernmental transfers.

NOTES

1. The implementation of above principles require operation of voting with feet mechanism. This brings us to the Tiebout literature which suggests that voting with feet will lead to jurisdiction formations creating a market analogue to public service provision. Oates had earlier suggested that allocative efficiency questions associated with voting with one's feet could be settled by examining tax and benefit capitalization. The existence of capitalization implies allocative efficiency. This conclusion has been rejected by Jan Brueckner (1979, 1982) and Anwar Shah (1983, 1988, 1989, 1990). Brueckner's test is based on the theoretical result that a non-positive relationship between public services and residential property values is a definite indication of over-provision of local public goods beyond optimal levels in the case of typical mixed communities, i.e., communities having substantial business property. An alternative test proposed by Shah uses the criterion that, when the level of local spending is optimal, a balanced budget change in local spending and residential property taxation should leave residential property values unaltered. Thus a positive impact of a balanced budget change would indicate under-provision and a negative impact over-provision of public services.

2. For specific examples of these see Diogo Lordelle de Mello (1988), "Resources Mobilization Strategies for Urban Development in Brazil", processed.

2.0 INTERGOVERNMENTAL TRANSFERS IN BRAZIL

The existing structure of federal-state-local transfers in Brazil can be broadly classified into two categories, namely: (1) tax transfers or revenue sharing arrangements mandated by the Brazilian Constitution and (2) Specific purpose transfers including negotiated transfers (convenios). In 1989, other than meeting its obligations for established programs such as the Unified and Decentralized Health Care System (SUDS), the federal government did not disburse any additional funds through the convenios. In a typical year, though convenios accounted for nearly 10% of federal transfers to states. The following paragraphs present a brief description of revenue sharing arrangements and other transfers.

2.1 Revenue Sharing Arrangements in Brazil

Revenue sharing arrangements have been specified in the new Brazilian Constitution. The Constitution provides strict criteria for the allocation of revenues to different levels of government and some guidelines on distribution of these through special funds among units at the same level. Specific distribution criteria are specified by parliamentary regulations. There is no stipulation as to the final disposition of these funds by the receiving government. The Constitution, nevertheless, provides that the Union must apply a minimum of 18%, states and municipalities each at least 25% of all tax revenues (including intergovernmental transfers) on education. Sharing of federal revenues from income and industrial product taxes are through participation funds established for this purpose. In 1988, the Federal Government transferred about NCz$ 1.5 billion to states and municipalities through the revenue sharing mechanisms (see Table 12). Of this total amount, 52% went to relatively less prosperous states in the north and the northeast regions of the nation. A description of major programs for revenue sharing is given in the following sections.

Table 12
BRAZIL: FEDERAL TAX TRANSFERS TO STATES AND MUNICIPALITIES - 1988

(Current NCz$ thousands)

Federal Unit	STATE GOVERNMENT			MUNICIPAL GOVERNMENT			TOTAL		
	Total	Per capita	% of total	Total	Per capita	% of total	Total	Per capita	% of total
Rondonia	18,222	17.88	2.43%	6,431	6.31	0.90%	24,652	24.19	1.68%
Acre	19,390	48.90	2.58%	3,928	9.91	0.55%	23,318	58.81	1.59%
Amazonas	22,638	11.94	3.02%	10,836	5.72	1.52%	33,474	17.66	2.29%
Roraima	13,862	122.56	1.85%	2,394	21.16	0.34%	16,256	143.73	1.11%
Para	42,730	9.04	5.70%	23,930	5.07	3.35%	66,660	14.11	4.55%
Amapa	18,654	77.66	2.49%	2,909	12.11	0.41%	21,563	89.77	1.47%
NORTH	135,496	16.15	18.06%	50,428	6.01	7.07%	185,924	22.16	12.70%
Maranhao	44,111	8.87	5.88%	27,961	5.63	3.92%	72,072	14.50	4.92%
Piaui	26,338	10.26	3.51%	17,152	6.68	2.40%	43,490	16.94	2.97%
Ceara'	45,134	7.23	6.02%	33,858	5.43	4.75%	78,993	12.66	5.40%
R Grande Nor	25,881	11.57	3.45%	18,551	8.30	2.60%	44,432	19.87	3.04%
Paraiba	28,358	9.00	3.78%	22,983	7.29	3.22%	51,341	16.29	3.51%
Pernambuco	42,048	5.91	5.60%	35,805	5.03	5.02%	77,853	10.94	5.32%
Alagoas	24,232	10.35	3.23%	16,090	6.87	2.26%	40,322	17.21	2.75%
Sergipe	24,188	17.67	3.22%	10,996	8.03	1.54%	35,184	25.70	2.40%
Bahia	69,702	6.17	9.29%	65,302	5.78	9.15%	135,004	11.94	9.22%
NORTHEAST	329,993	7.99	43.98%	248,698	6.02	34.86%	578,691	14.01	39.53%
Minas Gerais	65,702	4.28	8.76%	98,047	6.39	13.74%	163,749	10.67	11.19%
Espirito San	11,553	4.76	1.54%	12,843	5.29	1.80%	24,396	10.04	1.67%
Rio de Janei	31,070	2.29	4.14%	24,619	1.82	3.45%	55,690	4.11	3.80%
Sao Paulo	53,892	1.70	7.18%	102,181	3.23	14.32%	156,072	4.93	10.66%
SOUTHEAST	162,217	2.58	21.62%	237,690	3.77	33.31%	399,907	6.35	27.32%
Parana	28,685	3.28	3.82%	48,783	5.59	6.84%	77,468	8.87	5.29%
Santa Catari	15,301	3.55	2.04%	28,009	6.50	3.93%	43,309	10.05	2.96%
R Grande Sul	25,795	2.90	3.44%	44,524	5.01	6.24%	70,319	7.91	4.80%
SOUTH	69,782	3.18	9.30%	121,316	5.53	17.00%	191,097	8.71	13.06%
M Grosso Sul	9,784	5.71	1.30%	10,492	6.12	1.47%	20,275	11.83	1.39%
Mato Grosso	15,711	9.64	2.09%	12,335	7.57	1.73%	28,046	17.21	1.92%
Goias (*)	27,306	5.76	3.64%	32,507	6.86	4.56%	59,813	12.62	4.09%
CENTER WEST	52,800	6.53	7.04%	55,334	6.84	7.76%	108,134	13.38	7.39%
BRAZIL (*)	750,288	5.26	100.00%	713,465	5.00	100.00%	1,463,753	10.26	100.00%
Dist Federal	4,956	2.84		2,287	1.31		7,243	4.15	
Brazil + DF	755,244	5.23		715,752	4.96		1,470,996	10.19	

Sources: Ministerio da Fazenda - Secretaria Geral - Secretaria de Economia e Financas (MINIFAZ/SEF): Unpublished data

Note:

* Data exclude the Federal District (DF)

2.11 State Participation Fund (FPE: Fundo de Participacao dos Estados)

The federal government deposits 21.5% each of income tax (IR) and industrial products tax (IPI) in a special fund for later distribution by the States' Council to individual states . In determining state shares from this fund, the fund first sets aside 85% of total funds for distribution to states in the north, north-east and centre-west regions of the country and the remaining 15% for the south and the southeast region. The Act 104-A , 1989 argues that this initial allocation is necessary to safeguard regional equity objectives as tax assignment carried out by the Constitution appears to favour the rich states more than the poorer ones. The Act has further established deadlines for the federal government for the release of funds for distribution to states. The intent of these deadlines is to limit federal government incentives to benefit from inflationary gains by withholding state funds a bit longer than absolutely necessary. The formula for the distribution of funds among states takes into account population (a proxy for fiscal need) and inverse of per capita income (fiscal capacity indicator). The criteria specified for this purposes is expressed mathematically in Box 1. A proposal to extend this formula to incorporate land area (fiscal need measure), interstate trade orientation (spillover factor) and ratio of own revenues to expenditures (fiscal effort indicator) is currently under discussion in the Senate (see also Lei #165/89, Senado Federal).

This formula yields the participation coefficients for individual states as given in Table 13. These coefficients however were found unacceptable by the Council of Finance Ministers of the States and instead they developed modified coefficients as given in column 3 based upon mutual negotiations. These coefficients are applicable till 1991. Participation coefficients for 1992 and later years will be re-established based upon a review of the working of the formula and new data from the 1990 census.

A similar fund established for distribution of federal transfers to municipalities is named Municipal Participation Fund (FPM:Fundo de Participacao dos Municipios). This fund is discussed below:

BOX 1

DISTRIBUTION CRITERIA FOR THE STATES PARTICIPATION FUND (FPE)

$$(FPE)_i = 0.85 * G * S_N + 0.15 * G * S_S$$

Where $G = 0.215 * (IR + IPI)$

$$S_{N,S} = \left[\frac{(POPF)_i * (YPCF)_i}{\sum_{s=i}^{N} \left[(POPF)_i * (YPCF)_i \right]} \right]$$

and S_N = Participation coefficient for a state in the northeast, north and center-west regions.

S_S = Participation coefficient for a state in the south and southeast regions.

IR = federal tax collection from income taxes
IPI = federal tax collections from industrial products tax.
POPF = Population factor. The following table is used for this purpose.

% of national population represented by each state	POPF
upto 2%	2.0
2-4%:	
for the first 2%	2.0
for each additional 0.3%	0.3
5-10%:	
for the first 5%	5.0
for each additional 0.5%	0.5
above 10%	10.0

Box 1 (continued)

DISTRIBUTION CRITERIA FOR FPE (Continued)

YPCF = state income (per capita)
YPCF is determined according to the following table:

Average Per Capita income of all states/ Per capita income of state i	YPCF
Up to .00045	.4
Between .0055 and .0065	.6
.0065 - .0075	.7
.0075 - .0085	.8
.0085 - .0095	.9
.0095 - .0110	1.0
.0110 - .0130	1.2
.0130 - .0150	1.4
.0150 - .0170	1.6
.0170 - .0190	1.8
.0190 - .0220	2.0
Above .0220	2.5

Table 13
FRE: PARTICIPATION COEFFICIENTS FOR BRAZILIAN STATES
FOR 1990-1991

Federal Unit	Formula Share	Agreed Share
NORTH		
Rondonia	2.1164	2.8150
Acre	2.6270	3.4210
Amazonas	2.1850	2.7904
Roraima	1.9090	2.4807
Para	4.7225	6.1120
Amapa	2.6200	3.4120
NORTHEAST		
Maranhao	5.7415	7.2181
Piaui	3.3205	4.3214
Ceara'	7.0585	7.3369
R Grande Norte	3.2045	4.1779
Paraiba	3.6700	4.7889
Pernambuco	5.3960	4.3214
Alagoas	3,1900	4.1601
Sergipe	3.1860	4.1553
Bahia	9.4635	9.3962
SOUTHEAST		
Minas Gerais	7.9545	4.4545
Espirito Santo	1.5470	1.5000
Rio de Janeiro	4.2435	1.5277
Sao Paulo	3.9460	1.0000
SOUTH		
Parana	4.2400	2.8832
Santa Catarina	1.8800	1.2798
R Grande Sul	3.4615	2.3548
CENTER WEST		
M Grosso Sul	1.4735	1.3320
Mato Grosss	2.5530	2.3079
Goias	3.1450	2.8431
Distrito Federal	0.7535	0.6902

Source: Camara dos Deputados
Projeto de Lei Complementar No. 104-A, de 1989.
Ministerio da Fazenda - Secretaria Geral
Secretaria de Economia e Financas(MINIFAZ/SEF)
Boletim Informativo No. 166, December 1988

2.12 Municipal Participation Fund (FPM)

FPM was established as 13.5% of federal income and industrial product taxes in 1984 and raised to 20% in October 1988. This share of the specified taxes will rise by 0.5 percentage point each year until the new system is fully phased in 1993 with 22.5% of these taxes earmarked for the fund. 12% of the FPM funds are allocated to state capitals and municipalities with population greater than 400,000. Of the remaining 88%, 6% is set aside for the Municipal Participation Reserve Fund (RFPM: the Reserva do Fundo de Participacao de Municipios). The RFPM is available only to larger municipalities other than state capitals with 1990 population at least 4% of national population. The distribution of funds to all municipalities are by a formula which takes into consideration population and per capita income of each municipality. Funds vary directly by population and inversely by per capita income. Formulae details are given in Box 2. Table 14 provides details on the level of funding and the participation coefficients by population size of the municipal unit.

In addition to revenues through the FPM, municipalities also receive 50% of revenues from the rural property tax in proportion to the value of real estate properties located in their jurisdictions; 100% of payroll deductions of income taxes of municipal employees; 70% of tax on gold by origin; 2.3% of revenues from crude oil based on the value of production; and 50% of hydroelectricity and mineral taxes by the sales value of the minerals by origin.

2.2 Specific Purpose Transfers

Non-Constitutional Transfers: Overall there were 117 umbrella federal-state-municipal transfer programs in 1989 of which 19 were open to municipal participation. These programs can be broadly classified into four categories:

(1) The first type of transfers have been instituted to simply comply with specific laws other than the Constitutional provisions. Major transfers of this type include transfers to the Federal Capital (38% of total in 1987) ; transfers related to the creation of new states (21% of total in 1987) and financial compensation (royalties) paid to states for the

BOX 2

FORMULAE FOR THE DISTRIBUTION OF MUNICIPAL PARTICIPATION FUND (FPM)

State Capitals and Municipalities with 1990 population greater than 400,000

$$(FPM)_i^{sc} = 0.12 * G_{FPM} * \frac{(POPCL)_i \times (YPCF)_i}{\Sigma \left[(POPCL)_i \times (YPCF)_i\right]}$$

Other Municipalities

$$(FPM)_i^{om} = G_{FPM} * \left[0.82 \times \frac{(POPSM)_i}{\Sigma(POPSM)_i} + 0.06 * D_i * \frac{(POPML)_i \times (YPCF)_i}{\Sigma\ (POPML)_i \times (YPCF)_i} \right]$$

When G_{FPM} = 0.225 (IPI + IR)

D_i = 1 If municipality has a population greater than 156,216 or (POP) /Σ(POP) > 0.04 (includes non-capital municipalities with population greater than 400,000).

0 otherwise

Superscript sc refers to state capital

Superscript om refers to all other municipalities.

POPCL = population factor for state capitals and larger municipalities determined according to the following table:

% of total national population in this category living in municipality	POPCL
Up to 1%	1.0
Between 1 and 5%	
- for the first 1%	1.0
- for each additional .5% or fraction, add	.5
Above 5%	5.0

YPCF = state income per capita factor defined in the FPE section.

BOX 2 (Continued)

FORMULAE FOR THE DISTRIBUTION OF F.P.M (Continued)

POPSM = population factor for small and medium municipalities with population less than 400,000 determined according to the following table:

Population of the Municipality	POPSM
Up to 16,188	
- for the first 10,188	.6
- for each additional 3,396 or fraction	+ .2
Between 16,800 and 50,940	
- for the first 16,980	1.0
- for each additional 6,792 or fraction	+ .2
Between 50,940 and 101,880	
- for the first 50,940	2.0
- for each additional 10,188 or fraction	+ .2
Between 1010,940 and 156,216	
- for the first 101,880	3.0
- for each additional 13,584 or fraction	+ .2
Above 156,216	4.0

POPML = population factor for eligible (medium and large municipalities) determined according to the following table:

% of total population of eligible municipalities living in municipality	POPML
Up to 2%	2.0
Between 2 and 5%	
- for the first 2%	2.0
- for each additional .5% or fraction, add	.5
Above 5%	5.0

Table 14
BRAZIL: MUNICIPAL PARTICIPATION FUND COEFFICIENTS

(1989)

Population (Inhabitants)	Coefficient	Amount of municipal participation in US$ 000's
Up to 10,188	0.6	698
10,189 to 13,584	0.8	930
13,585 to 16,980	1.0	1,163
16,981 to 23,772	1.2	1,396
23,773 to 30,564	1.4	1,628
30,565 to 37,356	1.6	1,861
37,357 to 44,148	1.8	2,094
44,149 to 50,940	2.0	2,326
50,941 to 61,128	2.2	2,559
61,129 to 71,316	2.4	2,792
71,317 to 81,504	2.6	3,024
81,505 to 91,692	2.8	3,257
91,693 to 101,880	3.0	3,490
101,881 to 115,464	3.2	3,723
115,465 to 129,048	3.4	3,955
129,049 to 142,632	3.6	4,188
142,663 to 156,216	3.8	4,421
above 156,216	4.0	4,654

Source: Instituto Brasileiro Administracao Municipal, Noticiero, No. 96, September/89.

extraction of oil within their jurisdiction. Typically such transfers constitute 60% of annual total non-constitutional transfers.

(2) The second type of transfers are commonly referred to as convenios or negotiated transfers. These are not regulated by law and are based on negotiations between the federal and other levels units individually. Support for regional development, agriculture, education, health and housing are the priority areas for receipt of funds from convenios. They constituted 40% of the non-constitutional transfers in 1987.

(3) The third type of transfers are special investment funds/projects. These projects may be undertaken by state and local governments on behalf of the federal government. Financing comes from the General Revenue Fund as well as the Social Investments Fund (FINSOCIAL: Fundo de Investimento Social) and the programs for National Integration (PIN) and Redistribution of Land to Stimulate the Agrarian Economies of North and Northeast (PROTERRA). The transfers associated with these funds are not recorded in the Balancos Gerais da Uniao (BGU) as intergovernmental transfers. Nearly 70% of these funds are recorded under the umbrella of planning. There is flexibility in the use of these funds. The only requirement is that they be used for the development of basic social services and infrastructure.

(4) The fourth type of transfers are the transfers made through government agencies. These transfers also do not show up in the BGU. To account for these, it is necessary to enquire from many different agencies for what they record as non-tax transfers especially transfers made in the form of convenios. The collection of data on these transfers is a difficult task since the government agencies do not aggregate data so as to determine which part of the transfers went to state and local governments. The National Secretary of Treasury (STN: Secretaria do Tesouro Nacional) reported that in 1986 8.5% of tax revenues went to intergovernmental transfers not related to the sharing of tax revenues. Most of these transfers come from the ministries of Planning, Education, Finance, Urban Development and Health. The northeast region traditionally receives nearly one third of total transfers made through government agencies.

A description of negotiated transfers briefly described earlier follows:

2.21 Negotiated Transfers (Convenios)

A convenio represents federal transfer of funds to state and local governments for undertaking expenditures on behalf of the federal government in areas of federal government responsibility. These transfers are determined by supplemental laws or directly negotiated between different levels of government. These transfers constituted 22% of total federal-state-local transfers and 8% of federal revenues in 1987. Nearly 90% of these transfers (excluding those for enterprises) go to states and the remaining 10% to municipalities (see Table 15). Transfers to municipalities are usually for urban development and housing programs. Occasionally though large sums of money were made available to municipalities in seeking their political support e.g. CZ$ 6 billion for support for writing a new constitution in 1987 (see Afonso, 1989).

In 1988, there were over 3000 convenios with multitude of objectives. Tables 15 and 16 provide 1988 distribution of these transfers by destination (level of government) and by source (federal ministry). An accounting of these by programs and by objectives is not possible as it is an activity which the federal government traditionally does not monitor. A special survey done by the Ministry of Finance in 1988 has analyzed the data on convenios by functional classification and by state for 1985-1986. (see Tables 18 and 19 and appendix Tables A.1-A.3). This survey established that nearly two-thirds of conditional transfers in 1985-86 were meant for planning and education. The northeast region received a lion's share of transfers for education (46.4% of total) and the centre-west region received 62.6% of total transfers for planning. This survey further confirmed that most transfers on account of convenios were based on ad hoc decisions and devoid of any formal criteria and therefore could not be subjected to any formal analysis.

The 1988 federal allocation of negotiated transfers as reported in Table 15 has an interesting pattern of distribution among states. For example, the State of Maranhao, then-President Sarney's home state had a very peculiar participation in the overall distribution of negotiated transfers in 1988. Its state government alone received higher funding through negotiated transfers than all the state governments

Table 15
BRAZIL: FEDERAL NEGOTIATED TRANSFERS - 1988
Convenios, Agreements, Adjustments, Protocols, etc.

(Current NCz$ thousands)

Federal Unit	STATE GOVERNMENT			MUNICIPAL GOVERNMENT			ENTERPRISES			TOTAL		
	Total	Per capita	% of total	Total	Per capita	% of total	Total	Per capita	% of total	Total	Per capita	% of total
Rondonia	7,153	7.02	1.65%	355	0.35	0.67%	963	0.94	0.45%	8,471	8.31	1.21%
Acre	2,767	6.98	0.64%	153	0.39	0.29%	873	2.20	0.41%	3,793	9.57	0.54%
Amazonas	6,004	3.17	1.38%	919	0.48	1.72%	6,008	3.17	2.81%	12,931	6.82	1.84%
Roraima	219	1.94	0.05%	467	4.13	0.88%	1,595	14.10	0.75%	2,281	20.17	0.33%
Para	4,898	1.04	1.13%	1,798	0.38	3.37%	5,079	1.08	2.37%	11,775	2.49	1.68%
Amapa	312	1.30	0.07%	3,905	16.26	7.33%	3,144	13.09	1.47%	7,361	30.65	1.05%
NORTH	21,353	2.55	4.92%	7,597	0.91	14.26%	17,662	2.11	8.26%	46,612	5.56	6.65%
Maranhao	22,687	4.56	5.22%	4,605	0.93	8.64%	18,641	3.75	8.72%	45,933	9.24	6.55%
Piaui	9,518	3.71	2.19%	3,233	1.26	6.07%	3,496	1.36	1.63%	16,247	6.33	2.32%
Ceara'	15,347	2.46	3.53%	1,834	0.29	3.44%	10,836	1.74	5.07%	28,017	4.49	3.99%
R Grande Nor	8,734	3.91	2.01%	3,013	1.35	5.66%	5,032	2.25	2.35%	16,779	7.50	2.39%
Paraiba	7,292	2.31	1.68%	2,045	0.65	3.84%	4,387	1.39	2.05%	13,724	4.35	1.96%
Pernambuco	9,252	1.30	2.13%	2,173	0.31	4.08%	6,810	0.96	3.18%	18,235	2.56	2.60%
Alagoas	3,016	1.29	0.69%	2,835	1.21	5.32%	1,990	0.85	0.93%	7,841	3.35	1.12%
Sergipe	7,252	5.30	1.67%	2,394	1.75	4.49%	2,590	1.89	1.21%	12,236	8.94	1.74%
Bahia	10,874	0.96	2.50%	6,503	0.58	12.21%	9,009	0.80	4.21%	26,386	2.33	3.76%
NORTHEAST	93,972	2.28	21.64%	28,635	0.69	53.75%	62,791	1.52	29.36%	185,398	4.49	26.43%
Minas Gerais	11,173	0.73	2.57%	2,759	0.18	5.18%	19,199	1.25	8.98%	33,131	2.16	4.72%
Espirito San	1,505	0.62	0.35%	633	0.26	1.19%	1,162	0.48	0.54%	3,300	1.36	0.47%
Rio de Janei	4,963	0.37	1.14%	1,114	0.08	2.09%	68,209	5.03	31.89%	74,286	5.48	10.59%
Sao Paulo	243,258	7.69	56.02%	2,634	0.08	4.94%	10,980	0.35	5.13%	256,872	8.12	36.63%
SOUTHEAST	260,899	4.14	60.09%	7,140	0.11	13.40%	99,550	1.58	46.55%	367,589	5.84	52.41%
Parana	7,346	0.84	1.69%	1,808	0.21	3.39%	6,834	0.78	3.20%	15,988	1.83	2.28%
Santa Catari	5,927	1.37	1.37%	2,201	0.51	4.13%	5,984	1.39	2.80%	14,112	3.27	2.01%
R Grande Sul	13,358	1.50	3.08%	2,271	0.26	4.26%	9,098	1.02	4.25%	24,727	2.78	3.53%
SOUTH	26,631	1.21	6.13%	6,280	0.29	11.79%	21,916	1.00	10.25%	54,827	2.50	7.82%
M Grosso Sul	7,593	4.43	1.75%	917	0.53	1.72%	3,054	1.78	1.43%	11,564	6.74	1.65%
Mato Grosso	7,551	4.63	1.74%	834	0.51	1.57%	1,980	1.22	0.93%	10,365	6.36	1.48%
Goias	16,202	3.42	3.73%	1,875	0.40	3.52%	6,924	1.46	3.24%	25,001	5.27	3.56%
CENTER WEST	31,346	3.88	7.22%	3,626	0.45	6.81%	11,958	1.48	5.59%	46,930	5.81	6.69%
BRAZIL	434,201	3.04	100.00%	53,278	0.37	100.00%	213,877	1.50	100.00%	701,356	4.92	100.00%

Sources:
Ministerio da Fazenda - Secretaria do Tesouro Nacional - Secretaria de Contabilidade (MINIFAZ/STN/SECON): Unpublished data

Table 16
BRAZIL: FEDERAL NEGOTIATED TRANSFERS - 1988
Convenios, Agreements, Adjustments, Protocols, etc.

(Current NCz$ thousands)

MINISTRY-FUNCTION	STATE GOVERNMENTS			MUNICIPAL GOVERNMENTS			ENTERPRISES		
	Total	Per capita	% of total	Total	Per capita	% of total	Total	Per capita	% of total
INDUSTRY & COMMERCE	287	0.00	0.06%	45	0.00	0.08%	297	0.00	0.12%
MINING & ENERGY				738	0.01	1.31%	1,005	0.01	0.40%
IRRIGATION	19,719	0.14	3.81%	536	0.00	0.95%	5,017	0.04	1.99%
EDUCATION	31,165	0.22	6.02%	21,249	0.15	37.64%	21,211	0.15	8.42%
COMMUNICATIONS	1	0.00	0.00%				162	0.00	0.06%
AGRICULTURE	16,416	0.12	3.17%	1,049	0.01	1.86%	42,198	0.30	16.75%
PLANNING & ADMINISTRATION	68,548	0.48	13.24%	336	0.00	0.59%	455	0.00	0.18%
TRANSPORTATION	860	0.01	0.17%	1,691	0.01	3.00%	112,463	0.79	44.64%
INTERIOR	66,187	0.46	12.78%	30,751	0.22	54.48%	67,883	0.48	26.94%
LABOR	68,635	0.48	13.25%	8	0.00	0.01%	81	0.00	0.03%
SCIENCE & TECHNOLOGY	239,585	1.68	46.26%						
OTHER	6,490	0.05	1.25%	44	0.00	0.08%	1,170	0.01	0.46%
TOTAL	517,893	3.63	100.00%	56,447	0.40	100.00%	251,942	1.77	100.00%

MINISTRY-FUNCTION	TOTAL OF ALL FEDERAL NEGOTIATED TRANSFES		
	Total	Per capita	% of total
INDUSTRY & COMMERCE	629	0.00	0.08%
MINING & ENERGY	1,743	0.01	0.21%
IRRIGATION	25,272	0.18	3.06%
EDUCATION	73,625	0.52	8.91%
COMMUNICATIONS	163	0.00	0.02%
AGRICULTURE	59,663	0.42	7.22%
PLANNING & ADMINISTRATION	69,339	0.49	8.39%
TRANSPORTATION	115,014	0.81	13.92%
INTERIOR	164,821	1.16	19.95%
LABOR	68,724	0.48	8.32%
SCIENCE & TECHNOLOGY	239,585	1.68	29.00%
OTHER	7,704	0.05	0.93%
TOTAL	826,282	5.79	100.00%

Sources: Ministerio da Fazenda - Secretaria do Tesouro Nacional - Secretaria de Contabilidade (MINIFAZ/STN/SECON): Unpublished da
Poputation in 1988: 142,684.3 (thousands; IBGE)

Notes: Planning and Administration includes: MINIFAZ, SADEN/PR, SEPLAN/PR, PRESIDENCIA DA REPUBLICA
Other functions are: JUSTICE, NAVY, AERONAUTICS, FOREIGN AFFAIRS

Table 17
BRAZIL: FEDERAL TRANSFERS BY FUNCTION

(1988 NCz$ Per Capita)

	States				Municipalities			
	Operating	Capital	Sp. Inves	Total	Operating	Capital	Sp. Inves	Total
Agriculture	0.02	0.22	0.09	0.32	0.00	0.00	0.01	0.01
Regional Development	4.14	0.43	0.09	4.65	4.20	0.01	0.02	4.23
Education and Culture	2.60	0.06	0.00	2.65	1.57	0.00	0.00	1.57
Energy	0.75	0.00	0.00	0.75	0.17	0.00	0.00	0.17
Housing & Urban Development	0.02	0.17	0.00	0.19	0.00	0.12	0.00	0.12
Industry & Commerce	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Health and Sanitation	0.65	0.19	0.02	0.87	0.00	0.01	0.00	0.01
Transportation	0.78	0.01	0.00	0.79	0.37	0.00	0.00	0.37
Social Security	0.21	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Other Functions	0.49	0.05	0.16	0.93	0.00	0.00	0.01	0.01
Total	9.66	1.13	0.36	11.15	6.31	0.14	0.04	6.49

	States & Municipalities			
	Operating	Capital	Sp. Inves	Total
Agriculture	0.02	0.22	0.10	0.33
Regional Development	8.34	0.44	0.11	8.88
Education and Culture	4.17	0.06	0.00	4.22
Energy	0.92	0.00	0.00	0.92
Housing & Urban Development	0.02	0.29	0.00	0.31
Industry & Commerce	0.00	0.00	0.00	0.00
Health and Sanitation	0.65	0.20	0.02	0.88
Transportation	1.15	0.01	0.00	1.16
Social Security	0.21	0.00	0.00	0.00
Other Functions	0.49	0.05	0.17	0.94
Total	15.97	1.27	0.40	17.64

Sources: Balancos Gerais da Uniao - 1988
Anuario Estatistico do Brasil - 1989 (Population)

Table 18
EVOLUTION OF FEDERAL CONDITIONAL TRANSFERS TO STATES AND MUNICIPALITIES

(1983-87)

(percent)

	Agriculture	Regional Development	Education & Culture	Energy	Housing & Urban Development	Health & Sanitation	Transportation	Other Functions	Total
983	100	100	100	100	100	100	0	100	100
984	92	58	103	136	62	97	0	105	88
985	34	40	177	127	45	137	0	154	107
986	178	79	199	125	1,418	169	-	182	166
987	189	8	228	61	609	204	-	291	161

Source: Sec. Progr. Financeira/STN e "Balancos Gerais da Uniao", MINIFAZ
Deflator: IGP-DI medio (FGV)

Other Transfers = Intergovernmental Transfers minus Federal Tax Transfers

Other Functions = Legislative, Judiciary, Planning and Administration, Defense, Commerce and Industry.

Table 19
DISTRIBUTION OF TRANSFERS THROUGH "CONVENIOS"
TO STATES AND MUNICIPALITIES

1985-86

(percent)

Regions/ States	Planning	Education			Health			Urban Development	Finance	Others	Total
		Cash	In-kind	Total	Cash	In-kind	Total				
Acre	2.6	0.7	0.7	0.7	1.6	0.4	0.9	0.2	7.8	1.0	2.1
Amazonas	3.0	1.8	1.8	1.8	2.5	2.2	2.4	1.5	0.0	0.2	2.0
Para	2.8	4.1	4.4	4.2	3.0	4.5	3.9	1.7	0.0	4.3	3.0
Rondonia	3.9	1.3	1.0	1.2	1.4	1.0	1.2	1.2	79.5	5.4	10.3
Amapa	0.6	0.4	0.4	0.4	0.0	0.2	0.2	0.2	0.0	0.1	0.4
Roraima	0.5	0.3	0.4	0.3	0.5	0.1	0.3	0.1	0.0	1.7	0.4
Maranhao	7.7	7.0	7.1	7.1	3.7	4.5	4.1	2.7	0.0	6.8	5.9
Piaui	4.3	4.8	3.6	4.4	6.0	3.1	4.6	2.6	0.0	2.5	23.7
Ceara	2.5	6.6	8.2	7.0	5.1	7.4	6.2	2.3	0.0	4.1	4.1
R.Gde.Norte	1.9	3.4	2.8	3.2	7.6	3.8	5.8	2.4	0.0	1.9	2.4
Paraiba	2.7	4.2	3.9	4.1	4.1	3.5	3.9	4.1	0.0	1.9	3.0
Pernambuco	1.8	7.6	7.2	7.4	9.0	9.1	8.8	11.5	0.0	3.7	5.4
Alagoas	1.9	2.6	2.9	2.8	4.8	3.6	4.3	2.1	0.0	1.2	2.1
Sergipe	2.0	2.0	2.1	2.1	3.8	2.0	2.9	2.0	0.02	1.1	1.6
Bahia	3.2	8.1	9.4	8.5	8.8	10.6	9.3	5.9	0.0	7.0	5.5
Mato Grosso	4.6	2.1	1.8	2.0	2.8	1.1	1.9	2.8	1.5	2.5	2.9
M. Grosso Sul	2.4	2.0	2.7	2.3	2.4	2.0	2.2	2.4	0.0	3.1	2.2
Goias	2.1	4.4	3.5	4.1	3.5	4.2	3.9	3.9	0.0	5.4	3.0
Distrito Fedl.	43.5	2.2	1.4	1.9	1.0	7.5	4.9	2.8	0.0	0.6	16.5
Minas Gerais	0.5	9.5	12.9	10.8	8.2	5.3	6.9	7.0	0.0	12.6	5.5
Espirito Santo	3.0	1.9	2.5	2.2	2.3	1.7	2.0	4.3	0.0	1.9	2.3
Rio Janeiro	0.2	3.9	1.0	2.9	2.6	7.2	4.4	8.2	11.2	3.5	3.5
Sao Paulo	0.7	3.7	1.8	3.1	7.1	4.7	5.9	12.4	0.0	6.2	3.1
Parana	0.2	5.5	7.5	6.4	2.8	4.3	3.6	5.4	0.0	11.0	3.5
Sta. Catarina	0.9	4.3	3.6	4.0	2.1	2.4	2.2	4.9	0.0	3.7	2.4
Rio Gde. Sul	0.2	5.5	5.1	5.3	3.3	3.3	3.3	5.6	0.0	6.5	2.9
NORTH	13.5	8.6	8.8	8.7	9.0	8.5	8.9	4.9	87.3	12.7	18.3
NORTHEAST	28.2	46.3	47.3	46.4	52.8	47.7	49.8	35.5	0.0	30.2	33.9
CENTRE-WEST	62.6	10.7	9.5	10.3	9.8	14.8	13.0	11.8	1.5	11.6	24.6
SOUTHEAST	4.4	19.0	18.2	18.9	20.2	18.9	19.2	31.9	11.2	24.4	14.4
SOUTH	1.3	15.4	16.2	15.7	8.2	10.0	9.2	15.9	0.6	21.2	8.8
BRAZIL	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0

Source: Silvia Paiva, STN/MINIFAZ, Results from a special survey of government agencies.

in the northern region as a whole. Further, it claimed a lion's share (one-fourth) of all the negotiated transfers made to the northeastern state governments in 1988 (see Table 15). Of the regions, the southeast came out a big winner in the negotiated transfers sweepstakes. For example, its state governments received 60% of total negotiated transfers in 1988. Note that the same region received only 21.48% of total tax transfers. Thus the negotiated transfers substantilaly reverse the equity objectives sought through the tax transfers. A closer look at the shares of individual states from the negotiated transfers in the southeast presents an interesting picture. For example, Table 15 shows that the State of Sao Paulo, the richest state in the region and the nation, received 90% of the total transfers made to the southeast region. Here again, as in the case of Maranhao, it would be interesting to see whether an apparently favourable access to negotiated transfers available to Sao Paulo is supported by economic reasons or simply a reflection on its political clout in the federation.

From the casual observations reported in earlier paragraphs, two important issues arise:(1) the importance of political factors in the decisions concerning negotiated transfers; and (2) the extent to which the redistributive character of the tax sharing mechanisms are offset by the negotiated transfers. The political nature of negotiated transfers is well recognized though not yet fully documented, for reasons described earlier, in Brazil. Equity implications of these transfers will be discussed further in a later section on equalization.

A brief description of convenios by major function follows:

Health Care: A federal program to finance an integrated (unified) and decentralized system of health care named SUDS was initiated in 1987 by a Presidential Order (Decree Law no. 94657). Its objectives are to coordinate the health policies of the three different levels of government and to establish a unified health policy for the nation as a whole. The 1988 Constitution has reiterated the same objectives (vide article 198). The new Constitution has stressed decentralized delivery of health care with community level participation emphasizing preventive care.

In 1987, a large number of convenios were negotiated between the Union and States with the following objectives:

(i) management of INAMPS (National Institute for Medical Assistance of the Social Security System) centers;

(ii) financing of INAMPS centers; and

(iii) services to be provided by these centres.

Municipalities had the option of participating in the convenios under the terms of agreement acceptable to each state.

Financing for SUDS primarily come from the Fundo de Previdencia e Assistencia Social (FPAS). FPAS comprises of social security contributions of employers and employees through payroll deductions. The amounts to be transferred is determined on a yearly basis by supplemental agreements (TA:termos aditivos) as established by the convenios. After the signing of TAs , funds are transferred in monthly installments to states (see Appendix C for details).

The transfer of funds currently does not follow any formal criterion. The allocation of funds primarily takes place through the Integrated Programming-Budgeting Project (POI:Projeto de Programacao-orcamentacao Integrado). POI attempts to reconcile needs of various levels of government for health care to the availability of funds. Details of the POI process are given in appendix C. Previous year allocation usually serves as a reference point for current allocation. For example, in 1989, the MPAS (the federal Ministry of Social Security) established ceilings for transfers to each state based on a monetary correction of the actual transfers in 1988.

Of total spending on health at the state level (from all sources) federal transfers via convenios amounted to 7% of the total over the period 1981-86. There is a great deal of variation among states regarding federal share of health care spending. Alagoas received 13% of total financing whereas Ceara received 4.3% of total only.

States and municipalities receive 43% of the funds transferred by INAMPS, federal government entities 2.3% and therefore the public sector as a whole receives 45.3% of total transfers. Of the remaining funds 11.7% is allocated to private contractors (contratos); 7% to the convenios-network and 26.7% to the participation of the private network in the Hospital Admissions Authorization Network (AIHs: Autorizacao para Internacao Hospitalar). 1988 and 1989 distribution of funds by state is presented in Table 20.

Regional Development: Not much details are available on programs for regional development. Most of the funds are reported as intergovernmental transfers under the heading

Table 20
BUDGETARY DISTRIBUTION OF SUDS

By Federal Unit

(in percent)

Federal Unit	1988	1989
NORTH	5.77	6.68
Amazonas	1.55	1.47
Para	2.23	2.72
Acre	0.57	0.49
Amapa	0.23	0.20
Rondonia	1.14	1.00
Roraima	0.05	0.20
Tocantins	-	0.60
NORTHEAST	24.84	28.55
Alagoas	1.28	1.45
Bahia	7.66	7.68
Ceara	3.87	4.64
Maranhao	2.61	2.97
Paraiba	1.82	2.30
Sergipe	0.72	0.99
Pernambuco	3.76	4.60
Piaui	1.14	1.85
Rio Grande do Norte	1.90	2.07
CENTRE-WEST	6.77	6.71
Goias	2.74	3.00
Mato Grosso	0.91	1.01
Mato Grosso do Sul	1.03	1.15
Distrito Federal	2.09	1.55
SOUTHEAST	48.43	43.42
Espirito Santo	1.76	1.63
Minas Gerais	6.60	7.78
Sao Paulo	28.71	24.44
Rio de Janeiro	11.36	9.57
SOUTH	14.19	14.64
Parana	6.11	5.88
Rio Grande do Sul	5.39	5.99
Santa Catarina	2.69	2.77
BRAZIL	100.00	100.00

Investimentos em Regime de Execucao Especial (IREE) in BGU. In 1987, 8% of total conditional transfers were for regional development (see Table 18).

Education: Typically education transfers account for nearly one-third of total transfers. Nearly half of these transfers go to the northeast region. Education financing in Brazil comes from earmarked tax revenues (education salary tax:2.5% tax on private sector wages collected and returned by origin and Finsocial:The Social Investment Fund comprising proceeds from a 0.5% tax on gross receipts of all businesses. All revenues from this are earmarked for social services), general revenue fund and project grants through convenios. While not much details are available for convenios for secondary and post-secondary education, some details are available for Convenio Unico - a major instrument for the transfer of federal funding for primary education. This convenio establishes procedures for the preparation, submission and review of states and municipal requests for project financing. Documentation required for this purpose include a work plan organized by major educational goals, specific objectives under each goal and proposed projects to achieve the specified objectives. This project submission approval process is intended to give the federal government strong control over establishment of expenditure priorities at state and municipal levels.

Housing and Urban Development: During 1984-87, 10% of federal negotiated transfers were made available to states (26% of total) and to municipalities (74% of total) to finance various housing and urban development initiatives (see Appendix Table A1).

Planning and Administration: Convenios for planning and development are the responsibility of SEPLAN. The funds transferred for planning and administration however need not be spent on planning and administration. The funds are intended to provide financial support to projects related to the development of basic social services and for infrastructure.

Agriculture: Typically 7% of total federal transfers in a given year go towards financing agricultural development projects initiated primarily by the states and occasionally by the municipalities.

2.3 Intergovernmental Transfers: A Conceptual Perspective *

In attempting an economic evaluation of intergovernmental transfers in Brazil, it is instructive first to review economic rationale of transfers in a federation. This review will serve as a framework for passing qualitative judgements on the design of existing transfers. From the theory one can predict the general direction of influence a grant may have on the recipient's behaviour. Of course, the magnitude of this influence can only be determined by an empirical analysis which is beyond the scope of this paper (see Shah, 1980,1989 for an econometric model which distinguishes the income and price effects of grants empirically). Some knowledge of the general direction of grants is useful both in designing grant programs to meet specific objectives as well as to evaluate the existing structure of transfers. In the following sections, major types of grant programs are discussed and their rationale is also reviewed. The Brazilian system of transfers is evaluated in terms of its consistency with stated objectives and possible reform options are outlined.

2.31 Grant Types

2.311 Non-matching Transfers

Non-matching funds may be either selective or general (conditional or non-conditional). Selective non-matching transfers offer a given amount of funds without any local matching required provided it is spent for a particular purpose. The effect of this upon a lower level government's (hereafter referred as local government) budget constraint is shown in Figure 1. The post-grant budget line (ACD) is the pre-grant budget line (AB) shifted right by the amount of the transfer (AC). Since OE (equal to AC) of the assisted activity is free good from the local perspective, at least OE will be acquired and perhaps, but not necessarily, more.

Selective non-matching grants are best suited as a means of subsidizing activities to which the higher level government (say Federal government) assigns a high priority but are given low priority by local governments. Such a case would occur if a program generated a very high degree of spillovers

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* This section is based on McMillan, Shah and Gillen (1980)

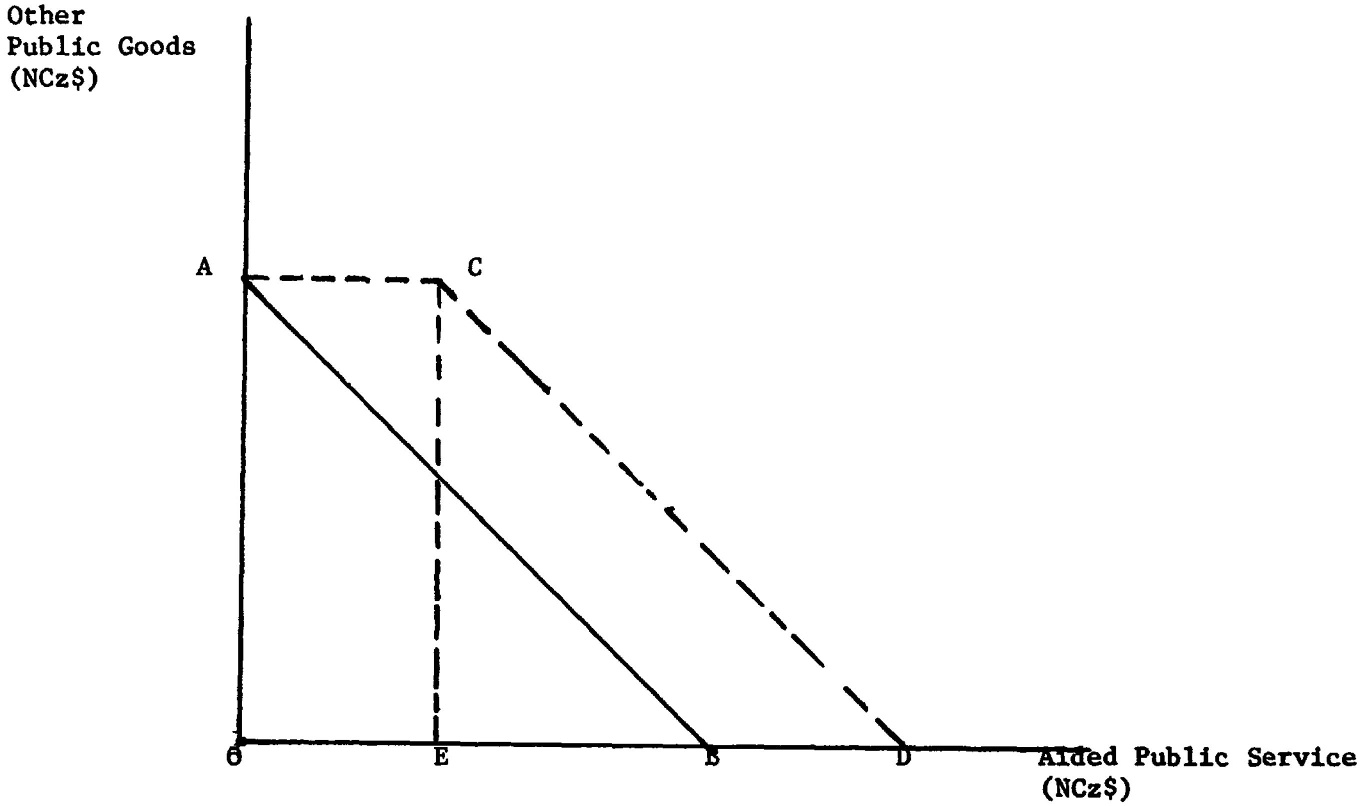

FIGURE 1 : CONDITIONAL NON-MATCHING GRANT

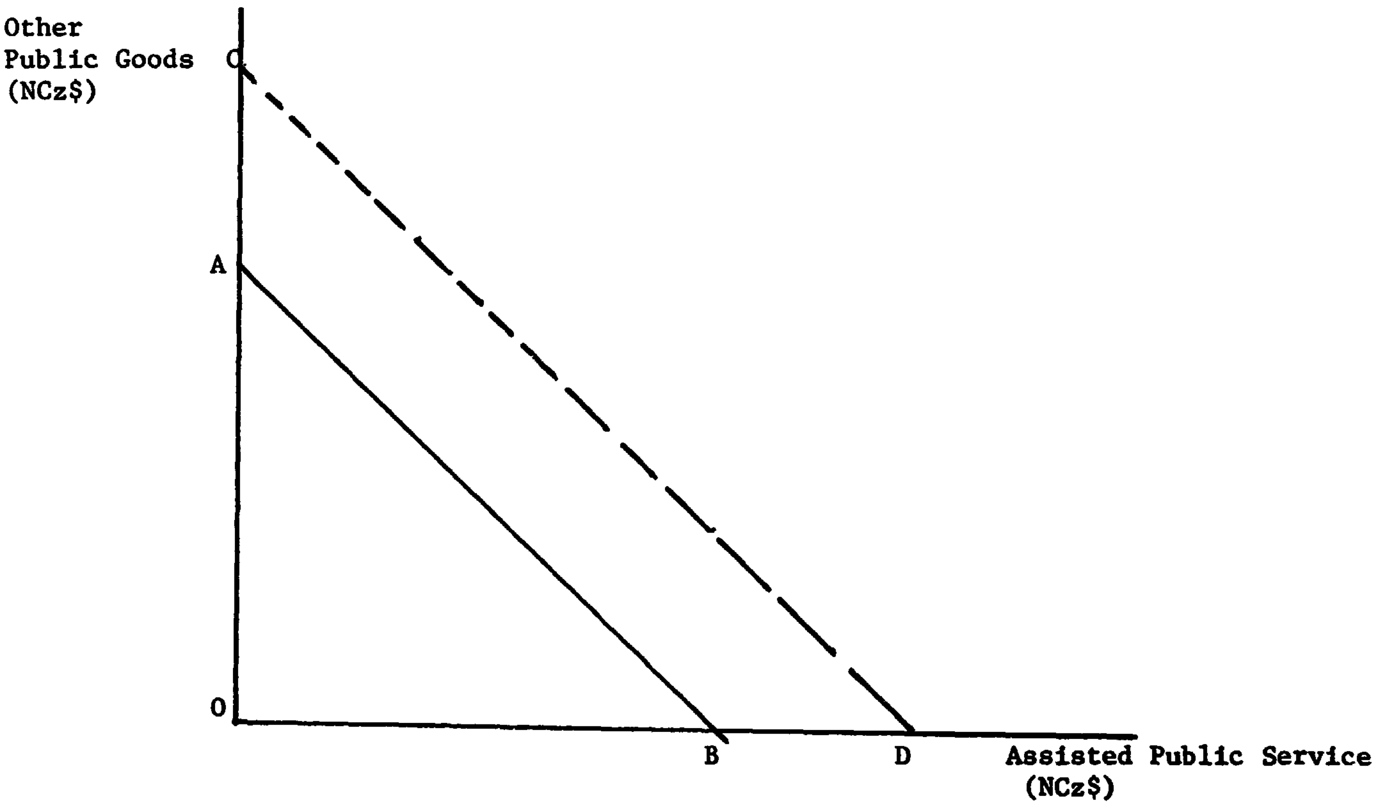

FIGURE 2: UNCONDITIONAL NON-MATCHING GRANT

up to some level of provision (like OE) after which the external benefits abruptly terminate. Although, there is no evidence to suggest that these features characterize state and local provision of education, health, regional developoment and agriculture in Brazil, yet almost all the funding through convenios is of the selective non-matching variety.

If the non-matching grant is unconditional or general, then no constraints are put upon how it is to be spent. Thus unlike the previous case no minimum expenditure in any area is expected. In this case, the recipient's budget line is shifted upwards and to the right throughout by the amount of the grant (AC=BD) and the new budget line becomes CD as opposed to AB (see Figure 2). The grant monies can be spent on any combination, public goods or services and/or to provide tax relief to residents. Since general non-matching assistance does not modify relative prices and must not be spent for a particular activity, it is the least stimulative of local expenditures. Typically, local expenditure will only increase by less than NCz$ 0.50 for each additional NCz$ 1.00 of unconditional assistance with the remaining funds going towards tax relief (i.e. made available to local residents to use for private goods and services). It has been noted that the portion of grants retained for greater local expenditure exceeds local government's own revenue relative to resident's incomes. This is referred to as the "flypaper effect" (Gramlich, 1977); that is grant money tends to stick where it first lands. The implication is that for political and bureaucratic reasons grants to local governments tend to result in greater local expenditure than would result if the same transfers were made directly to local residents.

The federal tax transfers to states and municipalities through the FPE and FPM are examples of grants of this variety. There is some evidence to suggest that such transfers are inducing municipalities to underutilize their own tax bases.

Given an amount of available assistance, recipients of grants prefer unconditional non-matching transfers. This is because these grants provide them with the maximum flexibility to pursue their own objectives as they augment resources without influencing their pattern of spending. Hence, the recipient is able to maximize his own welfare. The grantor, however, may be prepared to sacrifice some of the recipient's satisfaction in order to ensure that the funds are directed towards expenditures on which he places a priority. This is particularly so when federal objectives of affording fiscal assistance to states and municipalities is implemented through the programs of many different departments (e.g.

planning, health, education etc.) rather than through the Ministry of Finance which does not have a dominant influence in any specific area. In this case, the different departments do not want their program funds to be shifted , or even seem to be shifted, by local governments towards expenditures in other areas. In this situation, conditional (selective) non-matching "block" grants are attractive. Such funding of state-local assistance can ensure that the funds are spent in a department's area of interest (e.g. health care) yet need not distort local priorities among alternative activities or induce inefficient allocations in that expenditure area. This would appear to in part be the objectives pursued through the non-matching SUDS programs, although as presently structured, these programs may not be attaining these objectives in the most cost effective manner.

2.312 Selective Matching Transfers

Selective matching grants are those which require that the funds be spent for a specific purpose (i.e. conditional) and that the recipient matches the funds to some degree (e.g. 50:50, 66.3:33.7 etc.). They are also called cost-sharing programs. Consider a 25 percent subsidy program for transportation. The effect of such a program on local government budget constraint is shown in Figure 3. Without this transportation subsidy, AB indicates the combinations of transportation and other public goods and services a city can acquire with a budget of OA (equal to OB). Introducing a federal subsidy for transportation amounting to 25 percent of transportation expenditures (or NCz$ 3.00 of local funds for each NCz$ 1.00 of grant), the budget line of attainable combinations becomes AC. At any level of other goods and services, the community can obtain one-third more transportation services than previously.

If the community chose combination M prior to the grant, it will likely select a combination such as N afterwards. At N, more transportation is acquired. This results from two effects. One due to the subsidy the community has more resources (i.e. higher income) and some of those go to acquiring more transportation services. This is the income effect. The income effect is reinforced by the price or substitution effect. Since the subsidy reduces the cost (or price) per unit to the community of transportation services, they acquire more (even if total resources were no greater). Hence, both the

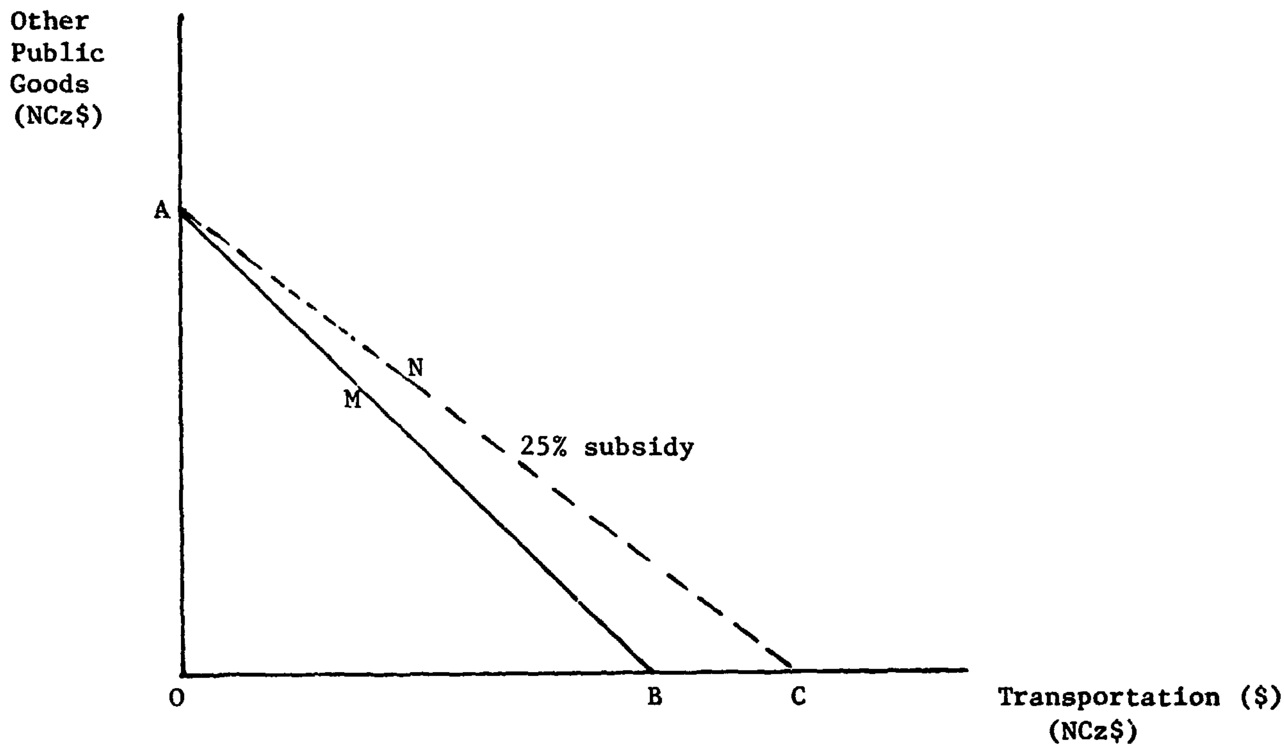

Figure 3: OPEN ENDED MATCHING GRANTS

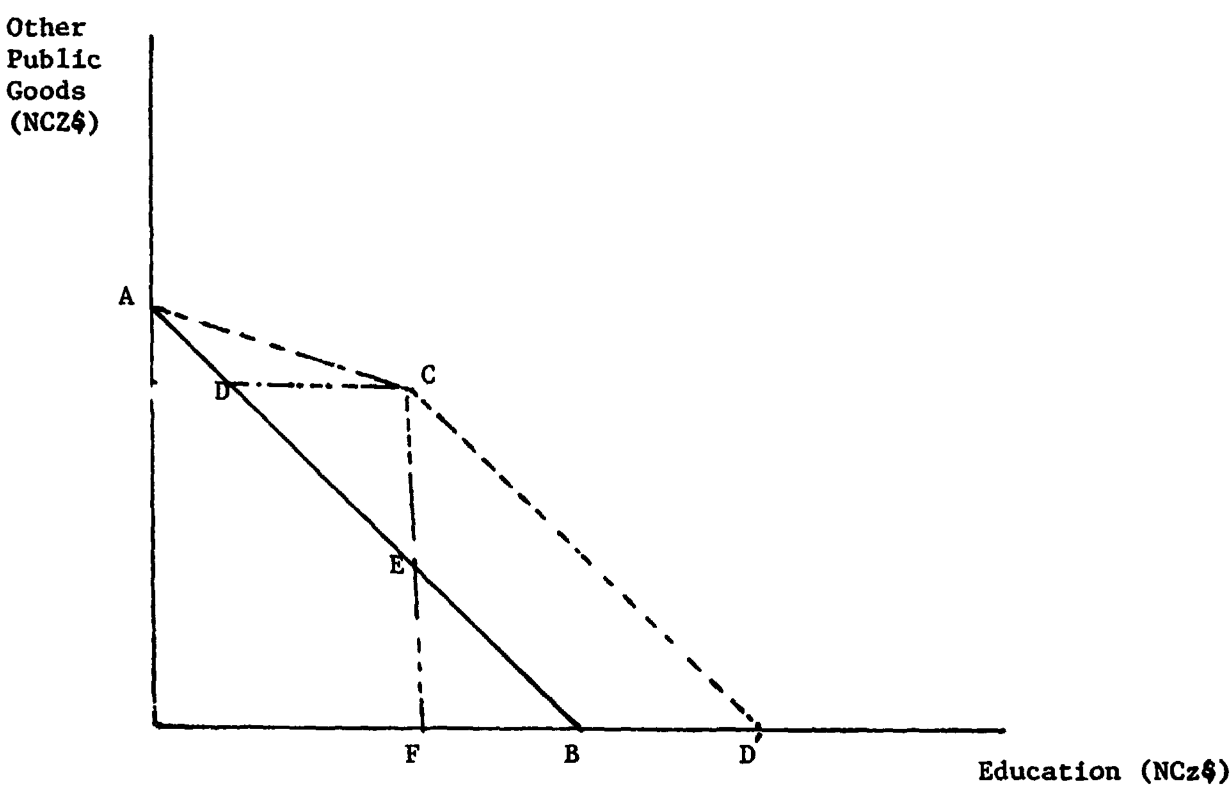

Figure 4: CLOSED ENDED MATCHING GRANT

price and income effects of the subsidy stimulate the acquisition of more transportation services.

Although the grant is for transportation, more of other public goods and services may also be acquired, although the relative price of other goods increase (i.e. they become more expensive) and the price effect works against them. If the positive income effect is sufficiently large, it will dominate and a part of the grant's effect will be greater level of consumption of other goods and services. Most studies tend to find that for grants of this kind, expenditures in the specified area increase by less than the amount of the grant with remainder shifted towards other public output and tax relief. For example, NCz$ 1.00 of grant tends to increase expenditures in the assisted area by NCz$ 0.80. The other NCz$ 0.20 is diverted to finance other public services (see Shah, 1979).

Open ended matching grants are well suited for correcting inefficiencies in public goods provision arising from benefit spillovers. Benefit spillovers , or externalities, occur when services provided and financed by a local government also benefit members of other local governments without their contributing to finance their provision. As members of the providing government perceive all the costs but obtain only a portion of the benefits, they will tend to under-provide the goods from the social viewpoint. If compensation arranged through negotiation among the affected communities is not feasible, the situation can be corrected by a senior government subsidizing the provision of the public service. The extent of spillover should determine the degree of subsidy (matching ratio for grant).

While matching grants can correct for inefficiencies arising due to spillovers, they do not cope with problems arising from uneven or inadequate fiscal capacities among state-local governments. Hence, local governments with ample resources, e.g. Sao Paulo, can afford to meet the matching requirements and so can acquire a substantial amount of assistance. However, other governments such as Para and Ceara with more limited fiscal capacities may be unable to devote as much to match federal funds and so fail to obtain as much assistance although their requirements may be no less and, indeed, their needs may even be greater. Other forms of assistance are needed to equalize fiscal capacities.

Closed ended matching provisions are usually preferred by grantors as they then are better able to control their budgets. The effect of closed ended matching grants on the local budget constraint is shown in Figure 4. AB is the original budget line with when no subsidies are available. However, when assistance for say education is available at say 66.7 percent rate up to a limit, the budget line is ACD.

Initially, costs are shared on a one-third:two-third basis upto a level of OF at which the subsidy limit of CD'(=CE) is reached. Expenditures for education beyond OF receive no subsidy so the slope of the budget line is 1:1 rather than 1:3 along the subsidized segment, AC.

Although one would not expect closed ended grants to stimulate expenditures on the subsidized activity more than open-ended grants, empirical literature typically finds them to be more stimulating. Gramlich (1977) and Shah (1979,1989) report that the estimated response to an additional $1.00 of this kind of grant is typically $1.50. Institutional factors may explain the rather large response. Gramlich notes that this type of grant is frequently used to encourage spending in areas with elastic (i.e. responsive to income and price effects) demands, the grants are large relative to normal spending by recipients in these areas, and/or the granting governments take measures to discourage the reduction of recipients' expenditures on these aided activities.

One might reasonably ask why the extensive use of selective closed ended matching grants by developed countries when they seem ill-designed to solve problems and inefficiencies in public goods provision. The answer seems to be that correcting for inefficiencies is not the sole and perhaps not even the primary objective sought with their use. Rather they are employed as a means of assisting local governments financially while promoting expenditures on activities given priority by the grantor. The selective aspects or conditions on the spending ensures that the funds are directed towards a desirable activity in the grantor's view. The local matching or cost sharing component affords the grantor a degree of control over and requires a degree of accountability by the recipient. Finally, of course, the cost to the granting government is known.

The conditional closed end matching grant has certain advantages from the grantor's perspective but there are also disadvantages. While they may result in a significant transfer of resources providing financial assistance, it may distort output and cause inefficiencies in doing so. The reason for this is that this aid is often only available for a few activities which results in excessive spending in those areas while others are underfinanced. The common argument is that local priorities are distorted. Also, it is typical that capital outlays are subsidized while operating costs are not. This results in selecting alternatives which are too capital intensive to be least cost. These aspects will be discussed later in the context of the Brazilian system. A summary view of the impact of selective transfers is presented in

Table 21. This table suggests that open ended selective matching grants are most suitable vehicle in inducing increase in expenditure on the assisted function by lower level governments. General non-matching transfers, on the other hand, would be preferred if the objective was simply to enhance welfare of local residents.

2.32 The Economic Rationale for Intergovernmental Transfers

In the preceding sections grants were discussed according to the different arrangements under which they are provided, i.e., selective and general non-matching and open and closed ended selective matching. In that discussion, the underlying rationale for grants was introduced but not elaborated upon. In order to re-emphasize this fundamental rationale and its implications for grant structure, the basic reasons for transfers are reiterated and summarized. Gramlich (1977), Boadway (1980,1990), and Shah (1979, 1983, 1984) note that there are economic and political justifications for grants. Economic justifications include efficiency (spillovers, common market arguments, differential net fiscal benefits), equity (fiscal gap, differential net fiscal benefits, redistribution) and to a minor degree stabilization objectives. An interesting aspect of the theory of grants is that efficiency and equity objectives are often complementary. Boadway (1980,1990) suggests that application of efficiency and equity principles results in four main economic reasons for grants. These are discussed below:

(i) Inter-jurisdictional Spillovers: Intergovernmental transfers can be used to increase the efficiency with which public goods and services are provided. Their major contribution is to correct for inefficiencies arising in the presence of interjurisdictional spillovers. Spillovers usually occur because the benefits of a locally provided good or service itself spills beyond the local jurisdiction to benefit those not contributing to the costs (e.g., benefits from control of air and water pollution, and locally educated students who relocate) and because non-residents come to the locality and enjoy the public services provided (e.g. parks, cultural, recreational and transportation facilities, state universities, state welfare and health care system). In the presence of spillovers, state-local governments consider own benefits only and under-provide public services. While other

Table 21
THE CONCEPTUAL IMPACT OF CONDITIONAL GRANTS

Type of Grant	Income Effect			Price (substitution) Effect			Total Effect			$\partial A/\partial G$	Rank by Objective Function	
	a_i	A	U	a_i	A	U	a_i	A	U		Increase in Expenditure	Welfare
A. SELECTIVE MATCHING												
i. Open-ended	↑	↑	↑	↑	↑	↓	↑↑	↑↑	↑↓	> 1	1	3
ii. Close-ended												
binding constraint	↑	↑	↑	↑	↑	↓	↑↑	↑↑	↑↓	≥ 1	2 or 3	4
non-binding constraint	↑	↑	↑	-	-	-	↑	↑	↑	≤ 1	3	2
B. SELECTIVE NON-MATCHING	↑	↑	↑	-	-	-	↑	↑	↑	≤ 1	3	2
C. GENERAL NON-MATCHING		↑	↑	-	-	-		↑	↑	< 1	3	1

Notes: a_i = Assisted subfunction
A = Assisted Function
U = Unassisted functions (services)
G = Grant

Source: Anwar Shah (1985)

approaches such as redrawing of jurisdictional boundaries and/or separate jurisdiction for each service may also be used (McMillan, 1975), intergovernmental transfers are a major and often the most practical means of alleviating the inefficiencies arising from spillovers of this kind. Open ended conditional matching grants which modify relative prices are the kind of transfers that is most appropriate for implementing these corrections. The extent of cost sharing by the higher level of government should be consistent with the degree of spillover. Benefit spillovers is not considered to be a serious problem in Brazil.

(ii) Fiscal Gap: A mismatch between revenue means and expenditure needs at various levels creates a structural imbalance resulting in revenue shortfall usually for a lower level government. This imbalance is characterized as a fiscal gap. Four often cited reasons for this imbalance are:(a) inappropriate expenditure and tax assignment;(b) limited and or unproductive tax bases available to a lower levels of government so that tax rates would have to be inefficiently high (e.g. in Mexico and Pakistan);(c):regional tax competition i.e. state and local governments fearful of loosing capital, labour and business activity to other jurisdictions do not fully exploit business tax potentials and thus provide lower levels of public services ; and (d): federal government crowds out tax room for state and local public sector.

To correct for problems associated with (a) and (b) above joint occupancy of some tax fields or decentralization of some taxes are advocated. Alternately unconditional grants and/or revenue sharing based on origin principle are also appropriate solutions to deal with this problem. Higher revenue effort by the federal government and unconditional grants are required to deal with tax competition issues discussed in (c) above. Finally, to deal with (d) above some form of tax abatement by the federal government is necessary to provide more tax room for lower levels in fields jointly occupied by the two or three levels of government.

(iii) Minimum Standards of Services: A third justification for intergovernmental transfers is based on an efficiency-cum-equity case for ensuring common minimum standards across jurisdictions in a federation. For certain services, expenditure assignment to state and local government may be based on efficiency of public service provision as well as responsiveness to local needs and concerns. This may conflict with the national equity and efficiency objectives (see Boadway, 1980, 1990).

Musgrave (1976) has argued that the redistributive role of the public sector is best performed by the federal government. Mobility of factors within a federation severely limits the redistributive role of local governments. The New York city provides a prime example in this case. Redistributive policies adopted by the city in the 1970s created a major fiscal crisis and the federal government had to intervene and reverse these policies to restore the financial health of the city. Hence, the case for the assignment of redistributive function to the federal government is quite strong on theoretical grants. Several of the public services assigned to state and local governments on efficiency or accountability grounds are strongly redistributive in character. Social insurance, health, education and welfare are prime examples of such services. Consider the case of health and education services. These are quasi-private goods and strictly from a technological efficiency point of view would be best provided by the private sector. Indeed in the U.S. health care is by and large treated as a private good. The World Bank, in recent years, has marshalled a great deal of resources to advocate private provision of health and education services in developing countries based on this view of economic efficiency. Needless to argue that such a viewpoint completely ignores information asymmetries such as moral hazard and adverse selection associated with private provision of such services. Fiscal federalism literature has argued that informational inefficiencies alone do not provide a convincing case for the public provision of health care and education. This literature points out that most governments treat health care as a fundamental public responsibility and strive to provide these services on a uniform basis. This is because these services are viewed as "redistributions in-kind". Thus a case for public provision of these services primarily rests on equity objectives. Consider the case of health services. Incidence of disease is directly correlated with the incidence of poverty and by corollary inversely associated with economic well-being. Thus public finance and provision of health care enhances the redistributive role of the public sector. Similarly public provision of education, by improving access of the poor, serves to further equality of opportunity goals. Relative importance of expenditures on health, education and social services further suggests that the redistribution effected by the tax system or direct cash transfers pale in comparison with the in-kind redistribution made possible by these public services.

In a federal system, lower level provision of such services while desirable from efficiency, preference matching and accountability perspectives, create certain difficulties in the fulfillment of federal equity objectives. Factor mobility and tax competition influences create strong incentives for lower level governments to under-provide such services as well as restrict access of such services to those most in need such as the poor or the old in view of their greater susceptibility to disease and thereby posing potentially greater risks for cost curtailment. These perverse incentives can be alleviated by conditional selective non-matching grants from the federal government. Such grants would not effect local governments incentives for cost efficiency while ensuring compliance with federally specified standards for access and level of services.

A second justification for common minimum standards for public services in a federation is based on economic efficiency considerations. Common minimum standards would help reduce interregional barriers to factor and goods mobility and thereby contribute to efficiency gains. Establishment of some minimum standards of social services will encourage labour mobility and of infrastructure capital will enhance factors and goods mobility. Boadway has emphasized that harmonization of expenditures would improve gains from interregional trade and help foster a common internal market.

Common minimum standards for public services across different states can be encouraged through conditional non-matching or conditional closed ended matching programs. A conditional non-matching program is to be preferred due to its non-obtrusive nature. State governments would be free to spend grant monies as they chose provided certain minimum standards of service and access are met. The higher level government will simply monitor compliance with these standards. Note that conditional non-matching grants in pursuit of common minimum standards serve both efficiency and equity objectives.

(iv) Differential Net Fiscal Benefits Across States

Differential net fiscal benefits across various states arise due to a number of reasons:

a. Some states are better endowed in natural resources and therefore have better access to an enlarged revenue base than others;

b. Some states or localities have relatively higher incomes and therefore greater ability to raise revenues from existing bases; and

c. Some states or localities have inherited higher cost disability factors such as lacking the minimum threshold for scale economies or difficult terrain factors etc. or higher need factors such as greater proportion of young, old and the poor.

The presence of differential net fiscal benefits encourages fiscally induced migration. Labour and capital may move to areas with positive net fiscal benefits based on fiscal considerations alone. In the process, some negative externalities imposed on the jurisdictions they leave and the jurisdictions they enter are ignored. A fisherman from Para may migrate to Minas Gerais , although he may not have any gainful employment opportunity there. Overall result of such fiscally induced migration would be that too many of the factors will move to resource rich areas creating in its wake social and economic problems and thereby serious inefficiencies and inequities. Inefficiency arises as factor movement takes place in response to fiscal considerations alone. Inequity is caused by identical persons in various states being treated differently by the public sector as a whole. National welfare is reduced by the externalities imposed by the fiscally induced migration.

Fiscal equalization grants to eliminate/reduce differential net fiscal benefits across states can enhance both the efficiency and equity of a federal system. An ideal form of such transfers would be an interstate revenue pool which provides both negative and positive equalization grants to member states such that net transfers equal zero. Thus the program by design will be self financing. Such a grant system must be unconditional and must not reward strategic behaviour to enhance positive grant entitlement or minimize negative transfer by member states. Thus grant design must incorporate factors over which states have little control. Three grant programs that have endured and are broadly consistent with the above guidelines are the West German, Canadian and the Australian systems of equalization transfers. The West German system is a fraternal system of equalization among the German states. The federal government simply acts as an observer and occasionally as a mediator. The Canadian and Australian system are not self financing and instead are federal programs. The Canadian system attempts to augment the fiscal capacity of member provinces up to the national average capacity. The system measures the fiscal capacity of a state by the revenue that could be raised in that state if the state government employed all of the standard revenue sources at the nationwide average intensity of use. The Australian system worries about expenditure needs as well (see Shah 1983, 1984). Issues in the design of an equalization program are discussed in an appendix to this chapter.

A further but infrequently mentioned objective of these transfers is to advance stabilization policies of the federal government as discussed below:

(v) Stabilization Objectives: Intergovernmental transfers can also be turned to assist in achieving economic stabilization objectives. Grants could increase in periods of slack economic activity to encourage local expenditure and diminish during the upswing of the economic cycle. Capital grants would be a suitable instrument for this purpose. Care must be exercised in ensuring that funds are available for operating expenditures associated with such initiatives.

2.4 Intergovernmental Transfers in Brazil: An Economic Evaluation

The conceptual basis of intergovernmental grants enunciated in earlier section provides us with a framework to evaluate the existing structure of intergovernmental transfers in Brazil. The following sections present observations on the tax sharing and transfer programs in Brazil.

2.41 Tax Sharing Program: A Closer Examination

As discussed earlier revenue sharing in Brazil takes place through two major funds, one each for states (FPE) and municipalities (FPM) and for certain taxes distribution of funds by origin according to pre-specified shares. The following discussion takes a closer look at the two revenue sharing pools mentioned above.

2.411 States Participation Fund: A Critical Look

The tax sharing program for states (FPE) in place in Brazil is modelled after the now defunct U.S. Revenue Sharing Program of the 1970s. This program represents a significant improvement over the U.S. program but many shortcomings remain.

The program is transparent and enjoys popular political support. It pays due regard to political autonomy of recipient units and places no special restrictions on the use of funds. It offers predictability of grant shares of individual states and thereby encourages federal units in taking a long term view of their expenditure priorities. The program is redistributive in nature. Grant funds are intended to vary directly with fiscal need (population size) and inversely with fiscal capacity (per capita income). Incorporation of population and per capita income have been done with a finesse. The values of these factors have been restricted to a range to avoid undue influence of abnormal values of one or more factors on a state's share. Furthermore such a range specification implicitly recognizes a basic minimum grant level for each state (per capita NCz$ 1.70 in 1988).

State Participation Fund (FPE) as currently structured is beset with many difficulties. It incorporates per capita income as a measure of fiscal capacity. Per capita income is an imperfect guide to the ability of a state government to raise taxes as it is conceivable that a significant proportion of income may accrue to non-resident owners of factors of production. Even if these conceptual problems are ignored, significant errors in estimating state gross domestic product in Brazil are encountered to make the measure unacceptable for an equalization program. Moreover, estimates of state per capita income are quite dated (most recent estimates are for 1980) and therefore of little relevance for use in a program of fundamental importance in federal-state fiscal relations such as the FPE. All factors are combined in the formula in a multiplicative manner and therefore an outlier performance on account of one factor can significantly influence the state entitlement from the FPE. The FPE attempts to achieve a number of diverse and somewhat conflicting objectives such as revenue sharing and equalization in a single measure and therefore expectedly significantly falls short on individual objectives. Consider the equity objectives. While the formula is indeed redistributive in nature in its overall impact, certain inequities in individual state shares arise from its application. For example the States of Acre and Para both had the same 1988 per capita income of NCz$266 but Para qualified for NCz$9.00 in tax transfers as opposed to NCz$49 for Acre. Roraima, on the other hand, had only slightly higher per capita income of NCz$286 but received NCz$123 in per capita tax transfers (see Table 9). While federal transfers do promote regional equity, the standard they strive to achieve remains to be specified. Per capita revenues inclusive of transfers in the northeast and the north in 1988 only reached roughly 2/3rd of the national average. Finally, while there is no visible opposition to the formula for the FPE in political or even academic circles in Brazil, States' Council in recent years has rejected its results and instead have decided to allocate the revenue pool on the basis of a political compromise which makes a further downward adjustment in the participation coefficients (shares) of richer states. It is remarkable that such a compromise could be struck.

2.412 Municipal Participation Fund: A Review

Municipal Participation Fund (FPM) is a unique program of federal-municipal unconditional transfers. Brazilian Institute of Municipal Administration (IBAM) has labelled it as "the most generous tax (transfer) system of municipal revenues among all developing countries" (IBAM Press Release No.96, September 1989). IBAM notes that federal tax transfer to municipalities through this fund in Brazil far exceeds the total budget of similar sized municipalities in other Latin American countries. For a large number of municipalities, FPM represents more than two-third of their gross revenues from all sources.

The program is transparent and thoughtfully designed in certain respects. For example, the formula recognizes population size an important determinant of need and also recognizes certain thresholds in population size. The distribution of funds is primarily based on population size and state per capita income. State capitals and larger municipalities because of their differential fiscal capacities and needs are treated separately from smaller and medium sized municipalities.

The FPM formula nevertheless has significant drawbacks. State per capita income is used as a proxy for municipal fiscal capacity in the distribution formula. This causes a number of difficulties. First, there is no municipal income tax in Brazil (and none is called for due to capital and labour mobility) and therefore per capita income is a poor indicator of a local government's ability to raise revenues. Second, state per capita income is also a poor index of municipal per capita income as per capita income varies a great deal within most Brazilian states. In short, the formula fails to reflect upon the differential fiscal capacity of Brazilian municipalities in a meaningful way and as a result does not distribute federal funds among Brazilian municipalities in a fair and equitable manner. For example, in 1988, per capita transfers to municipalities in Minas Gerais, a rich state, was NCz$6.39 as opposed to NCz $5.07 in Para, a have-not state.

The so-called generosity of federal funding for municipal functions creates some problems as well. For example, there is some evidence to suggest that generous availability of federal funds has resulted in some municipalities under-utilizing and in some instances abandoning own tax bases e.g. the property tax. Revenues from the urban property tax (IPTU) have been observed to decline in recent years. Almost all municipalities are paying inadequate attention to user charges. Thus the overall effect of the current arrangements have been to discourage own fiscal effort by municipalities as their revenue gains have outstripped any concomitant increase in their responsibilities. Further, municipal accountability has been significantly reduced as local politicians have no great need to convince voters about the desirability of local spending.

2.42 Negotiated Transfers: An Examination

It was earlier noted that most negotiated transfers in Brazil are of selective non-matching project grants. Such grants are useful when the expenditure priorities of the grantor and the recipient differ substantially. Project review and approval process is an attempt to safeguard the grantor's objectives. Most of the time such an attempt fails as the process creates incentives for recipients to put forward their best and of mutual interest projects which they would have financed any way and use the funds to finance other services of interest only to the recipient. The ingenuity of bureaucrats to convert grant monies into fungible resources can hardly be understated.

The federal government in Brazil, in the past, has attempted to use project review and approval process to influence state and local priorities to secure federal objectives. SUDS represents an example of such an attempt. In more recent years, these transfers have served not as a means of safeguarding any federal objectives but more as a vehicle for pork-barrel politics and therefore, grant programs have multiplied and for many of these programs, program objectives are either not specified or specified vaguely. Afonso (1988, p.15) notes that examples abound when funds were made available prior to the submission of project proposal. Further, in many instances, federal funds are made available to finance purely local functions. In 1988, there were 117 federal-state-local major programs with over 5000 sub-programs (convenios). Each of the state has several thousands of its own convenios. Sheer numbers of these programs discourage attempts at an analysis. Further, all three levels of government do not maintain any central inventories of such programs. There are some obvious reasons for this state of affairs. Various governments can exercise complete discretion over these funds without having any accountability. Enhanced flexibility is being achieved at the cost of transparency, objectivity and accountability.

Of a large number of convenios mentioned earlier, the major convenios for financing health care and education deserve some comments.

Integrated and Decentralized Health Care System (SUDS): SUDS represents one of the better thought of convenios. It does not follow any formal criteria for allocation of funds to state and local and private sector entities. Allocation to governmental units is based on a history of past health expenditures and any agreed upon capital projects. Formal processes have been established for requests and delivery of funds to state and local governments. This process seeks to balance expenditure demands with available resources.

The existing design of SUDS is subject to a number of current and potential difficulties. These center on: the availability of funds; degree of federal involvement; differential treatment of public and private providers of health care.

Availability and Predictability of funds: SUDS is financed by social security contributions and therefore competes with other social security related expenditures for financing. The 1988 Constitution has expanded the range of social security benefits available to employees. There has been no corresponding increases in social security contributions. Further, new tax sharing arrangements have limited the revenues at the disposal of the federal government. These fiscal strains are likely to constrain the federal funds available for the SUDS.

Degree of Federal Involvement: The 1988 Constitution has defined health care a shared responsibility between different levels of government. While the constitutional assignment is open to conflicting interpretations by various levels, the intent is fairly clear. The federal government has the primary responsibility in setting norms and distribution of federal funds; the states are responsible for delivery of health care under the norms specified by the federal government. Municipalities are seen as executing agents on behalf of the state governments. In practice, federal government is involved both in defining health policy but also the delivery of health care. In 1988, only 41.6% of total expenditures of SUDS were directed by state and local governments. Even for the transfers made available to state and local governments, for a large proportion of these funds, effective control remained at the centre in view of project approval process. This centralization of authority is clearly incompatible both with the stated objectives of SUDS as well as with the constitutional assignment of health care responsibilities. Based on the economic principles enunciated earlier also, the federal involvement in health care is justified on account of the redistributive nature of this public service. This would call for a more passive role by the federal government than is currently exercised by the INAMPS (National Institute for Medical Assistance and Social Security of the Federal Ministry of Social Security).

Differential Treatment of Public and Private Sectors: High rates of inflation and time lags in the delivery of transfers create certain anomalies in the treatment of public vs private providers of health care by the INAMPS. Current time lag for the transfer of funds upon approval from the federal treasury to state and local governments is about 70 days (see Afonso 1989) whereas the same lag for the private sector is about 45 days. This lag results in a loss of nearly half the value of expected transfers in real terms for the state and local public sector. The loss to the private providers is substantially less. Further, in 1989, private providers were entitled to an upward adjustment based on the consumer price index of their entitlements. Similar treatment to the public sector was denied.

In conclusion, SUDS represents one of the better conditional transfer programs currently in place yet substantial further improvements in its design are possible to further its objectives.

Education: As described earlier, through the Convenio Unico, federal government ascertains the needs of state and local governments for the finance of primary education in Brazil as well as makes in-kind transfers primarily in the form of school lunches and textbooks. Through this convenio, federal government attempts to reshape educational spending priorities of state and local governments. The New Constitution sees merely an advisory function for the federal government in the field of primary education. Thus there is no longer any justification for this convenio. Further, primary education is primarily a local function with very little if any spillovers beyond the boundaries of area providing the service. Thus it is best to give local governments complete autonomy in the provision and finance of such a service.

In summary, while some of the individual programs have a number of desirable features, overall the system of conditional transfers in Brazil is in need of major reform. These options are taken up in the next section.

2.5 Reform Options

This section outlines reform options based on some fundamental flaws of the existing structure identified in earlier sections. Alternative strategies for the reform of the revenue sharing and conditional transfer programs are outlined below.

2.51 Revenue Sharing

Existing tax assignment and revenue sharing system severely constrains the federal government while at the same time it gives municipalities almost a free ride. The federal government now commands only 31.5% of final disposition of revenues as opposed to 45.5% for state governments and 23.5% for municipalities (see Table 7). Policy emphasis on trade liberalization, export promotion and international competitiveness further limits federal government choices in exploiting its exclusive bases. This suggests that the federal government should withdraw from involvement in local functions. Further in subjects jointly shared with state governments it must stay in policy development arena and program development and administration be left to the states themselves. Specific comments on individual programs follow:

States Participation Fund (FPE): It is suggested that the FPE may simply be used as a mechanism for distribution of revenues by origin only and equalization and other objectives be addressed through separate and distinct programs designed for those purposes only. If this view is accepted, then the ICMS could be administered by the federal government on behalf of states and revenues returned by origin. Similarly, revenues currently in the FPE pool could be returned to states in proportion of the revenues raised from their territories.

Municipal Participation Fund (FPM): Direct federal transfers to municipalities do not satisfy any of the economic criteria mentioned earlier and on the other hand provide dis-incentives for municipalities to exploit own revenue sources. Thus it is suggested that the FPM be disbanded. Instead, states be encouraged to strengthen their unconditional transfers program to municipalities. States are in a better position than the federal government to monitor the fiscal positions of their municipalities and provide appropriate assistance. With the rural property tax (ITR) being returned to states and higher levels of transfers from the federal level, states would be in a better position to provide this assistance than currently. States transfers to municipal levels could be based on a formula similar to the FPM but which incorporates per capita municipal fiscal capacity as an important factor and further incorporates a basic per capita grant into the formula.

2.52 Negotiated Transfers

The system of negotiated transfers as it stands today needs to be completely revamped. These may be replaced by a system of selective (specific purpose) non-matching (block) per capita grants. Such grants will not interfere with the fiscal autonomy of state governments, will encourage innovation by individual governments and will help bridge the fiscal gap. Federal objectives will be fulfilled by making these grants conditional on achieving certain objectively verifiable criteria relating to minimum standards and access. Such grants would be particularly suitable for health and education financing. Through these grants the federal government could induce states to provide certain minimum standards of services while giving special access to the needy but poorer segments of the populations. Since there is no discernible differences in federal vs state priorities in these areas, project and/or matching grants would simply create administrative inefficiencies without having any behavioural impacts in the desired direction. Federal direct participation in municipal projects may be restricted to technical and financial assistance for major projects such as mass transit systems in large cities.

2.53 Equalization Program

Finally, to deal with interstate differentials in fiscal capacity, an over-arching program of equalization transfers be instituted to be administered by the Federal government on behalf of the Council of States. The program would be financed by applying negative and positive entitlements based on a formula to the monies available for distribution through the newly constituted FPE. Thus final disposition of revenues to each state will be based on revenues available to that state based on the derivation principle plus a positive or a negative entitlement based on an equalization adjustment. One possible standard of equalization for this purpose could be the per capita national average yield from sources to which state and local governments have direct or indirect access. More specifically, consider the arithmetic mean of all states as the standard of equalization and that all state and local tax bases are to included in the calculations. These include:

Shared Taxes (partial inclusion based on percentage share of State-Municipal sector):

Income tax

Payroll tax

Tax on industrial products

Hydroelectricity tax

Mineral Products Tax

State Taxes:

General Value-added Tax (ICMS)

Inheritance and gift taxes

Motor Vehicle Registration Tax (IPVA)

Supplementary Capital Gains Tax

Municipal Taxes:

Services tax (ISS)

Urban Property Tax (IPTU)

Fuels Tax (IVVCLG)

Property transfers (ITBI)

Frontage Tax

Note that the data on tax bases for shared taxes and state taxes is currently maintained by the federal and state governments but hardly ever analyzed for effective utilization. The proposed equalization program will encourage use of such data in tax policy analyses. The data on municipal tax bases would initially create problems of comparison and therefore would require adjustment factors to be applied based on sample values - a tradition followed in Canada. An attractive strategy in this regard may be to attempt equalization in the first five years of the program based on state level revenue sources only and later phase-in municipal revenue bases as and when comparable data on municipal tax bases becomes available.

Given a decision on the standard and the tax bases to be included is consistent with the above discussion, an equalization entitlement for a state say x for revenue source i could be determined as follows:

$$E^i_x = (POP)_x \left[\{(PCTB)^i_{na} \times t^i_{na}\} \right] - \{(PCTB)^i_x \times t^i_{na}\}$$

where E = Equalization entitlement of state x from revenue source i.

POP = Population

PCTB = Per capita tax base of revenue source i

t = National average tax rate of revenue source i.

subscript na = national average

Subscript x = state x.

The equalization entitlement for a state from a particular revenue source could be negative, positive or zero. These figures then would have to be summed up for all revenue sources considered for equalization and the overall sum would indicate whether a state would receive a positive or a negative entitlement from the interstate revenue sharing pool. Note that the application of agreed upon equalization standard to existing tax bases will be determining both the total level of funding available for equalization purposes as well as state entitlements. Thus the proposed formula makes equalization explicit and transparent in an objective manner. It will foster a greater sense of participation in the federation by member units especially have-not states.

Recapitulating policy reform proposed above have three elements: namely tax sharing arrangements based on origin principle, conditional per capita block federal-state grants with federally specified minimum standards as the condition for such grants and an equalization program to raise the fiscal capacity of have-not states to a certain specified standard.

2.6 State-Municipal Transfers in Brazil

The following sections review tax sharing and state-municipal conditional transfers in Brazil. A broad overview of these arrangements for the country as a whole is presented while drawing upon specific examples from the States of Para and Parana.

2.61 State-Municipal Revenue Sharing

Earlier sections of this paper elaborated upon the importance of Federal transfers as a source of municipal revenue and drew implications of this for municipal fiscal management. A second important source of municipal revenues in Brazil is the constitutionally mandated state-municipal revenue sharing arrangements. These transfers constitute one-third of municipal revenues in Brazil (31.6% in 1987, see Table 22). It is remarkable that the municipalities of some states in Brazil raise as little as 2% of total revenues from own sources (see 1987 figures for Maranhao in Table 23). Mechanisms for these arrangements have been specified in the regulations drafted by the Federal Parliament. The regulations provide specifics of the formula as well as timing for the release of funds. Most recent regulations as given in Projeto de lei Complementar no.177 (1989) are presented in Box 3. This law specifies that municipal shares of federal and state transfers should be immediately deposited in the joint account of all municipalities. Further, individual municipal accounts should be credited no later than the second working day of each week for all revenues received in the previous week.

Box 3 shows that a highly transparent system of transfers has been instituted by Federal regulations. Distribution of tax transfers for the most part follows the origin principle. ICMS revenues are distributed by a formula which mandates that at least 75 percent of such revenues to municipal governments be allocated by value-added. Since ICMS is a value-added type tax, this clearly recognizes the origin as the guiding principle in the distribution of these transfers. Following this principle, wide divergence of municipal transfers in per capita terms by state is obtained as shown in Tables 22 & 23. A small weight is given in the formula to other factors which the individual states may consider important in the distribution of these monies in their jurisdictions.

Table 22
1987 - STATE TAX TRANSFERS RECEIVED BY BRAZILIAN MUNICIPALITIES

(Values in Current NCz$ Thousands)

Federal Unit	STATE TAX TRANSFERS - CURRENT value	per capita	% of total	STATE TAX TRANSFERS - CAPITAL value	per capita	% of total	STATE TAX TRANSFERS - TOTAL value	per capita	% of total	STATE TAX TRANSFERS, % OF MUNICI. GROSS REVENUES
Rondonia	277	0.28	0.23%	0			277	0.28	0.23%	16.26%
Acre	57	0.15	0.05%	0			57	0.15	0.05%	6.26%
Amazonas	601	0.33	0.50%	595	0.32	27.39%	1,196	0.65	0.97%	30.20%
Roraima	31	0.28	0.03%	0			31	0.28	0.03%	8.49%
Para	785	0.17	0.65%	0			785	0.17	0.64%	13.92%
Amapa	41	0.18	0.03%	7	0.03	0.32%	48	0.21	0.04%	9.27%
NORTH	1,792	0.22	1.49%	602	0.07	27.72%	2,394	0.29	1.95%	18.28%
Maranhao	302	0.06	0.25%	12	0.00	0.55%	314	0.06	0.26%	5.64%
Piaui	414	0.16	0.34%	2	0.00	0.09%	416	0.17	0.34%	10.13%
Ceara'	1,776	0.29	1.47%	20	0.00	0.92%	1,796	0.29	1.46%	17.13%
R Grande Norte	547	0.25	0.45%	21	0.01	0.97%	568	0.26	0.46%	12.53%
Paraiba	709	0.23	0.59%	1	0.00	0.05%	710	0.23	0.58%	14.25%
Pernambuco	3,175	0.45	2.63%	16	0.00	0.74%	3,191	0.46	2.60%	26.28%
Alagoas	946	0.41	0.78%	0			946	0.41	0.77%	23.14%
Sergipe	522	0.39	0.43%	0	0.00	0.00%	522	0.39	0.43%	14.50%
Bahia	5,169	0.47	4.29%	50	0.00	2.30%	5,219	0.47	4.25%	23.64%
NORTHEAST	13,560	0.33	11.24%	122	0.00	5.62%	13,682	0.34	11.14%	19.11%
Minas Gerais	11,935	0.79	9.90%	375	0.02	17.27%	12,310	0.82	10.03%	33.09%
Espirito Santo	2,001	0.84	1.66%	15	0.01	0.69%	2,016	0.85	1.64%	32.42%
Rio de Janeiro	11,988	0.90	9.94%	37	0.00	1.70%	12,025	0.91	9.79%	30.08%
Sao Paulo	50,489	1.63	41.87%	702	0.02	32.32%	51,191	1.65	41.70%	37.89%
SOUTHEAST	76,413	1.24	63.36%	1,129	0.02	51.98%	77,542	1.26	63.16%	35.49%
Parana	7,749	0.91	6.43%	167	0.02	7.69%	7,916	0.93	6.45%	31.77%
Santa Catarina	4,837	1.14	4.01%	23	0.01	1.06%	4,860	1.15	3.96%	36.30%
R Grande Sul	9,874	1.13	8.19%	26	0.00	1.20%	9,900	1.13	8.06%	41.88%
SOUTH	22,460	1.04	18.62%	216	0.01	9.94%	22,676	1.05	18.47%	36.61%
M Grosso Sul	1,882	1.12	1.56%	2	0.00	0.09%	1,884	1.13	1.53%	33.93%
Mato Grosso	1,513	0.96	1.25%	101	0.06	4.65%	1,614	1.02	1.31%	24.95%
Goias	2,977	0.64	2.47%	0	0.00	0.00%	2,977	0.64	2.42%	26.45%
Distrito Federal										
CENTER WEST	6,372	0.67	5.28%	103	0.01	4.74%	6,475	0.68	5.27%	27.82%
BRAZIL	120,597	0.85	100.00%	2,172	0.02	100.00%	122,769	0.87	100.00%	31.61%

Source: MINIFAZ/SEF

Table 23
1987 - OWN REVENUES AND TOTAL EXPENDITURES OF BRAZILIAN MUNICIPALITIES

(Values in Current NCz$ Thousands)

Federal Unit	GROSS REVENUES			TOTAL FED. AND STATE TRANSFERS			OWN REVENUES			TOTAL EXPENDITURES		
	value	per capita	% of total	value	per capita	% of total	value	per capita	% of total	value	per capita	% of total
Rondonia	1,704	1.74	0.44%	1,347	1.37	0.53%	357	0.36	0.26%	1,765	1.80	0.44%
Acre	910	2.36	0.23%	825	2.14	0.33%	85	0.22	0.06%	899	2.33	0.22%
Amazonas	3,960	2.15	1.02%	3,348	1.82	1.32%	612	0.33	0.45%	4,300	2.33	1.07%
Roraima	365	3.33	0.09%	321	2.93	0.13%	44	0.40	0.03%	400	3.65	0.10%
Para	5,639	1.23	1.45%	4,403	0.96	1.74%	1,236	0.27	0.92%	5,363	1.17	1.33%
Amapa	518	2.23	0.13%	428	1.84	0.17%	90	0.39	0.07%	656	2.82	0.16%
NORTH	13,096	1.61	3.37%	10,672	1.31	4.21%	2,424	0.30	1.79%	13,383	1.64	3.32%
Maranhao	5,565	1.14	1.43%	5,429	1.12	2.14%	136	0.03	0.10%	5,135	1.06	1.27%
Piaui	4,107	1.63	1.06%	3,754	1.49	1.48%	353	0.14	0.26%	3,940	1.56	0.98%
Ceara'	10,486	1.71	2.70%	7,615	1.24	3.01%	2,871	0.47	2.13%	10,623	1.74	2.63%
R Grande Nor	4,533	2.07	1.17%	3,526	1.61	1.39%	1,007	0.46	0.75%	4,166	1.90	1.03%
Paraiba	4,984	1.61	1.28%	4,379	1.41	1.73%	606	0.20	0.45%	4,795	1.54	1.19%
Pernambuco	12,144	1.74	3.13%	9,218	1.32	3.64%	2,926	0.42	2.17%	11,760	1.68	2.91%
Alagoas	4,089	1.78	1.05%	3,278	1.42	1.29%	811	0.35	0.60%	3,827	1.66	0.95%
Sergipe	3,601	2.68	0.93%	2,773	2.06	1.09%	828	0.62	0.61%	3,484	2.59	0.86%
Bahia	22,073	1.99	5.68%	14,944	1.35	5.90%	7,129	0.64	5.28%	21,464	1.94	5.32%
NORTHEAST	71,582	1.77	18.43%	54,916	1.35	21.68%	16,666	0.41	12.34%	69,194	1.71	17.15%
Minas Gerais	37,202	2.46	9.58%	28,299	1.87	11.17%	8,903	0.59	6.59%	38,259	2.53	9.48%
Espirito San	6,219	2.61	1.60%	4,147	1.74	1.64%	2,072	0.87	1.53%	6,665	2.80	1.65%
Rio de Janei	39,973	3.01	10.29%	16,696	1.26	6.59%	23,277	1.75	17.24%	45,181	3.41	11.20%
Sao Paulo	135,090	4.37	34.78%	74,207	2.40	29.29%	60,883	1.97	45.08%	146,339	4.73	36.27%
SOUTHEAST	218,484	3.54	56.25%	123,349	2.00	48.69%	95,135	1.54	70.45%	236,444	3.83	58.61%
Parana	24,917	2.92	6.42%	17,708	2.08	6.99%	7,209	0.85	5.34%	23,662	2.77	5.86%
Santa Catari	13,388	3.16	3.45%	10,911	2.58	4.31%	2,477	0.58	1.83%	13,131	3.10	3.25%
R Grande Sul	23,637	2.70	6.09%	17,859	2.04	7.05%	5,778	0.66	4.28%	23,348	2.67	5.79%
SOUTH	61,942	2.88	15.95%	46,478	2.16	18.35%	15,464	0.72	11.45%	60,141	2.80	14.91%
M Grosso Sul	5,553	3.32	1.43%	4,006	2.39	1.58%	1,547	0.92	1.15%	6,165	3.68	1.53%
Mato Grosso	6,468	4.09	1.67%	4,710	2.98	1.86%	1,758	1.11	1.30%	6,966	4.41	1.73%
Goias	11,257	2.43	2.90%	9,205	1.98	3.63%	2,052	0.44	1.52%	11,157	2.41	2.77%
Distrito Fed												
CENTER WEST	23,278	2.43	5.99%	17,921	1.87	7.07%	5,357	0.56	3.97%	24,288	2.54	6.02%
BRAZIL	388,382	2.75	100.00%	253,336	1.79	100.00%	135,046	0.95	100.00%	403,450	2.85	100.00%

Source: MINIFAZ/SEF

Table 23 (Continuation)

Federal Unit	OWN REVENUES/EXPENDITURES
Rondonia	20.23%
Acre	9.45%
Amazonas	14.23%
Roraima	11.00%
Para	23.05%
Amapa	13.72%
NORTH	18.11%
Maranhao	2.65%
Piaui	8.96%
Ceara'	27.03%
R Grande Norte	24.17%
Paraiba	12.63%
Pernambuco	24.88%
Alagoas	21.19%
Sergipe	23.77%
Bahia	33.21%
NORTHEAST	24.09%
Minas Gerais	23.27%
Espirito Santo	31.09%
Rio de Janeiro	51.52%
Sao Paulo	41.60%
SOUTHEAST	40.24%
Parana	30.47%
Santa Catarina	18.86%
R Grande Sul	24.75%
SOUTH	25.71%
M Grosso Sul	25.09%
Mato Grosso	25.24%
Goias	18.39%
Distrito Federal	
CENTER WEST	22.06%
BRAZIL	33.47%

Source: MINIFAZ/SEF

BOX 3

STATE - MUNICIPAL REVENUE SHARING IN BRAZIL[1]

Revenue Source nd Distribution	Distribution Criteria
. State Value Added Tax (ICMS) Shares: State 0.75 Muni. 0.25	$M_i = .25 * \text{ICMS} \left\{ \left(\frac{VA_i}{VA_s} \right) * p + (\text{other factors}) * (1-p) \right\}$ where: M_i = Funds allocated to municipality i VA = Value Added (average of past two years) = = value of outflow of goods + value of services rendered within municipality - value of inflow of goods. p = proportion of funds distributed by values added component The following range for p is specified by law (L.C. no. 177) $.75 \leq p \leq 1.$ Other factors = Each state is given complete discretion over specific other factors to be included in the formula.
). Motor Vehicle Registration Tax (IPVA) Shares: State 0.50; Munic. 0.50	- Returned by State Treasury by origin. Immediate credit of municipality upon collection.
c. 10% of Federal IPI (Pass-through revenues) Shares: State: 0.75 Munic. 0.25	- Same as ICMS Note: This is intended to provide financial compensation to states for loss of ICMS revenues on account of exports.

[1] Source: Projeto de Lei Complementar No. 177

The State of Para uses population (7% weight) area (2% weight), and fiscal effort (9% weight) as special factors. In addition, it distributes 7% of the fund in equal amounts per municipality (see Box 4). The State of Parana uses proportion of population in rural areas, population and area as special need factors.

2.62 Conditional Transfers

Various details needed for an analysis of state conditional transfers to municipalities are not available. Anecdotal evidence suggests that most states have a large number of convenios usually in thousands to provide project assistance. Further that most of these project grants are motivated by political considerations rather than any sound (or even unsound) economic analysis.

2.63 An Evaluation and Policy Recommendations

The existing revenue sharing system primarily serves to return ICMS revenues by origin. 25% of total revenues are intended to be consistent with fiscal needs of individual municipalities. It is in this area that formula designs of individual states need re-examination. Consider the state of Para, 75% of the funds vary directly by value-added, 9% by ratio of municipal revenues to state revenues. Thus for 84% of the funds municipalities with above average fiscal capacity but not necessarily having higher fiscal effort stand to gain more than proportionately.

Another 9% are distributed by taking into account municipality size determined by relative population and area. Finally, the remaining 7% are allocated equally among all municipalities. Fiscal equalization by varying a proportion of funds inversely with fiscal capacity (tax bases for municipal sources) is not recognized in this formula. In fact municipal tax bases hardly enter into the formula. Even the fiscal effort compensation is poorly designed and serves to benefit larger municipalities only without any due regard for their fiscal effort.

The existing formula can be improved by; (1) incorporating an explicit equalization component in the formula based on a ratio of per capita average fiscal capacity of all municipalities to

BOX 4

MUNICIPALITIES SHARE OF ICMS

STATE OF PARÁ

Municipalities Participation Coefficient: [1]

$$I_i = 75\left(\frac{V.AD_i}{V.AD_E}\right) + 7\left(\frac{POP_i}{POP_E}\right) + 2\left(\frac{A_i}{A_E}\right) + 9\left(\frac{RT_i}{RT_E}\right) + \left(\frac{7}{N}\right)$$

where:

I_i = Municipality's i participation coefficient

$\left(\frac{V.AD_i}{V.AD_E}\right)$ = Ratio of Municipality's Value Added and State's Value Added.

$\left(\frac{POP_i}{POP_E}\right)$ = Ratio of Municipality's and State's Population.

$\left(\frac{RT_i}{RT_E}\right)$ = Ratio of Municipality's and State's Tax Receipts

N = Number of Municipalities in the State.

A = Area

Note:

The Municipality's Value Added is given by the sum of its Aggregate Value in the two years that preceded the computation of the coefficient:

$$V.AD_i = V.A_{i,t-1} + V.A_{i,t}$$

where:

$V.A_{it}$ = Aggregate Value of Municipality i at year t.

Aggregate Value Formula:

$$VA = \left(I+C+P.P \right) + \left(\frac{ICMRET + EST}{17\%} \right) + \left(HFG+CFO+COOP \right)$$

where:

I+C = Difference between in-flow and out-flow of goods (Industry and Commerce).

P.P = Primary production.

ICMRET= ICM withheld

EST = estimates of ICM revenues computed by the regional bureaus of the state secretary of Finance.

CFP = (Company for the Financing of Production). Value of goods purchased.

COOP = value of the commerce undertaken by cooperatives.

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[1] Source : Governo do Estado do Pará - Secretaria de Estado da Fazenda. ICM dos Municipios - Manual da Cota Parte 1989

per capita fiscal capacity of municipality i in the formula and distributing a fixed percentage of funds by this factor and; (2) the current fiscal effort index should be replaced by the following measure:

Fiscal Effort Component = (per capita own revenues/per capita tax base) divided by (average per capita own revenues of all municipalities/ average per capita tax base for all municipalities). Shah (1983) specifies alternative approaches to incorporating these factors in a formula. The incorporation of fiscal equalization and fiscal effort components into the formula for state-municipal revenue sharing system will provide special compensation for fiscal need and fiscal effort but at the same time will help states better monitoring of the fiscal health of municipal governments in their jurisdictions.

Conditional transfer programs are also in need of restructuring. Only a handful of programs with explicit objectives say e.g. spillover compensation or ensuring certain minimum transportation standards etc. need to be developed and then their design should reflect their objectives. For example, a transportation program which intends to compensate a municipality for the use of its roads by non-residents would be a matching program with matching determined by the spillover factor. A program to upgrade transportation services to certain minimum standards would be a block grant program with adherence to the specified standards as a pre-condition for receipt of funds. Following this approach, the Brazilian states could reduce their conditional programs to a dozen or less program from the current count of several thousands. Such a design will enable the higher level government to achieve its objectives in a cost-effective manner without distorting local priorities. Given the almost universal criticism of existing conditional transfers in Brazil, the reform of these arrangements should be a matter of high priority for all levels of governments.

3.0 SUMMARY AND POLICY RECOMMENDATIONS

In this chapter, the major results of previous chapters are brought together to provide an overview of the existing state of fiscal federalism in Brazil and the directions for change advocated in this paper. For this purpose, first the tax and expenditure assignment issues are reviewed and their implications for horizontal and vertical fiscal balance are examined. Second, federal transfers to states and municipalities are briefly described and analyzed. Third, state transfers to municipalities are examined. Fourth, implications of the above analyses as to the potential directions for reform are summarized. Finally, the implications of the reform proposals for efficiency and equity of public service provision and macroeconomic management are addressed.

3.1 The Assignment Issues

The 1988 Constitution has made a reasonably clear assignment of public service provision and revenue raising responsibilities to federal, state and municipal levels in Brazil. Purely local functions such as intracity transport, zoning, preventive health care and elementary education has been assigned to the municipal level exclusively. The responsibility for public services that are national in scope such as defense and foreign affairs etc. has been entrusted to the federal level and the remaining functions are designated as shared responsibilities of the federal and state levels with the federal government setting the norms and the state government responsible for the delivery of services. Unfortunately, the de facto assignment or the practice in Brazil is at substantial variance with the de jure assignment and the federal government's direct involvement in purely local functions is quite pervasive.

The constitutional tax assignment has created some difficulties as well. These are primarily in the area of sales taxes. All three levels have partially overlapping responsibilities in tax policy development and administration for value-added type taxes. The federal government is responsible for a manufacturer level sales tax called by the name of Industrial Product Tax (IPI). The municipalities can levy a value-added tax on services (ISS). The states have the mandate of a general value-added tax whose base encompasses IPI and ISS. This multiplicity in administration raises the administration and compliance costs of these taxes. Further, Brazil is the only country in the world with a state level general value-added tax. This has the potential of evolving into a tax with multiple rates on non-uniform bases in the long run. Already inter-state tax crediting issues remain by and large unresolved and are fast becoming a source of major concern for the Council of States. A second source of difficulty concerns the assignment of the rural property tax. This tax is more suitable for administration at the state-local level but is currently being administered at the federal level.

3.2 Issues in Intergovernmental Transfers

The federal transfers to state and municipalities are based either on revenue sharing arrangements or specific purpose transfers. Revenue sharing mechanisms are well defined. One of the main instruments for federal-state revenue sharing is the State Participation Fund. The Federal Government transfers a pre-specified share of certain federal taxes to this pool. The Council of States then determines state shares based on a formula that incorporates population and per capita income as its main components. A proposal currently under discussion would extend this list of components to include land area, interstate trade and fiscal effort factors. In recent years formula determined shares have been found unacceptable to the Council and therefore, it had to resort to a compromise allocation based on an arbitrary adjustment to formula shares. The principal merits of the this program are the consistency of its design with transparency, predictability and local autonomy objectives. The program further pays some attention to fiscal equalization objectives. The program nevertheless has many design flaws which inhibit achievement of its objectives. For example, state per capita income is included as a measure of fiscal capacity. It is an imperfect guide to the ability of a state government to raise taxes as it is conceivable that a significant proportion of income may accrue to non-resident owners of factors of production. Further only a small proportion of total state revenues are raised from income taxes alone. This measure is also subject to implementation difficulties in Brazil. Estimates of state per capita income are subject to significant errors and are available with a long lag. For example, currently only 1980 estimates are available. These difficulties significantly diminish the usefulness of per capita income for use in a program of fundamental importance in federal-state fiscal relations. The FPE further combines diverse and sometimes conflicting objectives such as revenue sharing and fiscal equalization at the state level into a single formula in a multiplicative manner and therefore significantly falls short on individual objectives. The program is redistributive in its overall impact but consistency of individual state shares with the formula objectives is not assured and states with similar fiscal capacity receive widely different entitlements. Since the formula lacks an explicit equalization standard, it also fails to address regional equity objectives in a satisfactory manner. These failings explains why the Council of States finds it easier to strike a political compromise rather than accept the formula results.

The program to channel federal revenue sharing monies to municipalities is called the Municipal Participation Fund (FPM). This program considers municipal population and state per capita income in the determination of shares of individual municipalities. This program has two major drawbacks. First, the formula used for this program fails to incorporate differential fiscal capacity of the Brazilian municipalities in a meaningful way and therefore formula application does not result in a fair and equitable distribution of funds among individual municipalities. As there is no local income tax in Brazil (and none is called for due to capital and labour mobility), per capita income is a poor indicator of a local government's ability to raise revenues. Further, in each state rich municipalities coexist with poor municipalities but state per capita income, by definition, would fail to make a distinction between the two classes. Second, this program, is observed to discourage local fiscal effort by meeting nearly two-third of municipal revenue requirements from the federal revenue sources. Such overwhelming dependence of municipal governments on outside revenues creates a dichotomy between spending and revenue raising decisions and contributes to reduced financial accountability at the local level.

Specific purpose transfers support important policy objectives in a federation. These objectives include: benefit spillover compensation; bridging fiscal gap; ensuring minimum standards of public services across the nation; fulfillment of the redistributive function of the federal government; creation of a common internal market; reduction in net fiscal benefits across jurisdictions and achievement of economic stabilization objectives. Grant objectives would pre-determine grant design. The federal and state governments in Brazil have an incredibly large number of specific purpose programs. For many of these programs, program objectives are either not specified or specified vaguely and in some instances reflection upon grant objectives is done after the release of funds. In more recent years, federal specific purpose transfers have served not as a means of safeguarding federal objectives but increasingly as a vehicle for pork-barrel politics. There are only a handful of programs with some desirable features. One such program is for unified and decentralized system of health care provision known as SUDS. Federal financing is provided to achieve certain minimum standards of health care across the nation. The intent of the program is for the federal government to specify policies and state and local governments to implement federally mandated programs. In practice, however, the federal government continues to be heavily involved in program administration as well and therefore the decentralization objectives have as yet not been fully achieved. In the coming years, fiscal pressures of the new fiscal arrangements on the federal government are also likely to constrain the federal funding for the SUDS. Finally, the existing program gives preferential treatment to private contractors over state and local government agencies.

Finally, State-municipal transfers have two important components. One such component is the constitutionally mandated state-municipal revenue sharing arrangements or state-municipal tax transfers. The distribution of such transfers for the most part follows the origin principle. 75% of state value-added tax (ICMS) revenues are distributed in proportion to the value added in each municipality and for the remaining 25% states have been given discretion in incorporating fiscal need factors as they see fit. Population and area are the two most commonly used need factors. Some states have also used fiscal effort as a special factor. A major criticism of the existing arrangements is that fiscal equalization by varying a proportion of funds inversely with fiscal capacity (tax bases for municipal sources) is not recognized in the formulae currently in vogue. In fact, municipal tax bases hardly enter into any consideration. Even the fiscal effort component is usually poorly designed and serves to benefit larger municipalities only without any due regard for their fiscal effort. A second component of state transfers to municipalities is specific purpose or negotiated transfers. Most states have a large number of convenios usually in thousands to provide project assistance. Sheer numbers of these transfers defy any analysis. Anecdotal evidence suggests that political considerations dominate in the distribution of grant funds.

3.3 Implications of Existing Arrangements

This assessment of existing structure of fiscal relations has identified a number of significant failings. Most prominent of these are:

a. Federal and state governments are involved in some purely local functions in an uncoordinated fashion;

b. Sales taxes administration by the three levels results in some duplication and confusion;

c. The administration of the general value added tax at the state level creates yet unresolved issues in tax crediting on interstate trade;

d. The FPE and FPM fail to distribute revenues in a fair and an equitable manner;

e. Conditional transfers are arbitrary and primarily driven by political considerations. Various programs work at cross purposes and therefore hamper success in achieving major objectives. Highly subjective nature of these transfers may even be sending wrong signals to lower levels of government regarding fiscal management. For if it is alright for the federal government to follow imprudent policies then lower level governments also would not feel the need for fiscal restraint. ; and

f. The net impact of expenditure and tax assignment and revenue sharing measures have been to severely constrain the federal government's ability to fulfill its mandate as a national government while generous availability of funds to municipal governments without any concomitant increase in their responsibilities create strong incentives for fiscal mismanagement. There is some evidence to suggest that municipal governments are shying away from raising revenues from property taxes and user charges. The state governments are also facing a financial squeeze in the short run but given their access to the value added tax- a dynamic source of revenues, their fiscal problems are expected to be short lived. Thus the existing fiscal arrangements have been instrumental in creating a vertical imbalance in the nation. The problem for the federal government is structural in nature. Its revenue means significantly fall short of its expenditure needs. Fiscal imbalance for state governments, on the other hand, is likely to disappear with increase in revenues from the ICMS and restraints in expenditures. Fiscal imbalance for the municipal governments is of the reverse nature. Their current revenue means if fully exploited substantially exceed their expenditure needs.

In conclusion, many aspects of the existing arrangements contribute to a fiscal malaise in the country and therefore, an urgent need for reform can hardly be over-emphasized. The following sections presents some reform options.

3.4 Proposals for Reform

The following reform options are suggested to deal with the shortcomings of the existing arrangements identified earlier.

Towards an Economic Constitution: Earlier analysis suggested that the Constitutional assignment in Brazil is broadly consistent with economic principles. The following suggestions, if implemented, will move Brazil a step closer to having an economic constitution.

i. Immediate turnback of direct federal involvement in functions of purely local nature such as primary and secondary education, urban grading, bridges, zoning etc. Further, administration of health and education as stipulated in the Constitution should be a state responsibility. Therefore, the roles of federal ministries of health and education be reduced to setting minimum standards and providing per capita block grants to induce compliance.

ii. Direct federal role in municipal finance and administration need to be severely restrained.

iii. The three sales taxes, IPI, ICMS and ISS be combined into one tax to be administered by the federal government on behalf of state and local governments. The proceeds from the tax then be shared by the three levels in proportion to their current intake from this source.

iv. The administration of the rural property tax be turned over to the state level.

v. A restructuring of revenue sharing and transfer programs as outlined below.

Restructuring Proposals for Federal Transfers to States:

i. No change in the source of funds for the State Participation Fund is proposed. Initial allocations from this Fund would be based simply on the derivation principle and final allocations to be determined by equalization adjustments discussed in the following.

ii. It is proposed that the existing system of negotiated transfers be completely revamped. These transfers may be replaced by a system of specific purpose block per capita grants. These grants will be conditional on meeting federally specified and objectively verifiable criteria relating to minimum standards and access.

iii. It is proposed that an equalization program be instituted to deal with interstate differentials in fiscal capacity. This program would be financed by applying positive and negative entitlements based on a formula to the monies available for distribution through the FPE based on the origin principle. The representative tax system approach as outlined earlier may be used to determine state entitlements.

Restructuring Proposals for Transfers to Municipalities

i. It is proposed that federal unconditional transfers to municipalities be completely eliminated. To this end, the Municipal Participation Fund be disbanded and states be encouraged to strengthen their unconditional transfers programs to own municipalities. Thus the FPM could be reconstituted at the state level. State transfers to municipal levels on account of a restructured FPM would be based on a formula similar to the FPM but which incorporates per capita municipal fiscal capacity as an important factor and further incorporates a basic per capita grant and a fiscal effort component.

ii. State specific purpose transfers be consolidated into a handful of programs with clearly stated objectives based on verifiable indicators.

3.5 Implications of Reform Proposals

The restructuring options discussed earlier will satisfy the following objectives.

i. Tax and expenditure assignment will be brought in close conformity with economic principles and thereby enhancing the efficiency and equity in public service provision.

ii. The proposed equalization program would foster a sense of greater participation by member units in the Union. The have-not states will realize a contribution by the Union to their uplift and the have states will enjoy some satisfaction in seeing an explicit recognition of their contributions for the greater well-being of the nation as a whole. Fiscal management goals will also be advanced by this program as it will provide monitoring of fiscal capacities of member units. Higher level governments would be in a better position to take corrective actions for fiscal adjustment in a timely fashion.

iii. The system of transfers would be rationalized offering predictability while safeguarding local autonomy objectives. Long term planning and judicious exploitation of own revenue bases would be encouraged.

iv. Finally, structural imbalances would be eliminated and remaining imbalances could potentially be corrected by own actions by various governments.

APPENDIX A

THE DESIGN OF A FISCAL EQUALIZATION PROGRAM: ISSUES AND OPTIONS

An equalization program in addition to safeguarding national objectives of providing certain minimum levels of public services across the nation can foster a greater sense of participation in the federation of member states and therefore is often viewed as a glue that holds a federation together. Economic literature has long recognized that equalization is justified on horizontal equity grounds and in recent years, that under certain conditions it could promote economic efficiency. Recent constitutional changes in Brazil suggest that equalization is a matter of high priority in the country. A recent World Bank mission has nevertheless observed that the existing fiscal arrangements fail to deal adequately with this objective. The following paragraphs deal with some fundamental issues in designing an equalization program.

In principle, a properly designed fiscal equalization transfers program would correct distortions caused by fiscally induced migration. Such a program would equalize net fiscal benefits across states and thereby promote economic efficiency. To measure net fiscal benefits reasonable approximation of costs and benefits of public services provision in various states is essential. This requires developing measures of differential revenue raising abilities and the costs of provision of public services of the Brazilian states. Equalization of net fiscal benefits could then be attempted by adopting a standard of equalization and establishing the means of financing these transfers. These and related issues of unconditionality; tax effort; stabilization effects; and employment of strategy are discussed in the following subsections.

Measurement of Fiscal Capacity

The estimation of fiscal capacity, i.e., the ability of governmental units to raise revenues from their own sources, is difficult both conceptually and empirically. The alternative measures of fiscal capacity are unlikely to show approximately the same results. Of a large variety of such measures that are available the two most prominent measures are discussed below.

Macro Indicators

Various income or output measures serve as indicators of ability to bear tax burdens by the residents of a state. Among the better known measures are:

(i) Personal Income: The personal income of a state is the sum of all incomes received by the residents of a state. It is not a satisfactory measure of overall fiscal capacity as it is a measure of ability to bear tax burdens but a highly imperfect and partial measure of ability to impose them.

(ii) Personal Disposable Income: Personal disposable income is defined as personal income less direct taxes. This concept of income shares the weakness of personal income as a measure of fiscal capacity.

(iii) State Gross Domestic Product: It represents the total value of goods and services produced within a state. It also is an imperfect guide to the ability of a state government to raise taxes as it is conceivable that a significant proportion of income may accrue to non-resident owners of factors of production. Even if these conceptual problems are ignored, significant errors in estimating provincial gross domestic product in Brazil are encountered to make the measure unacceptable for an equalization program.

We already noted that the equalization of net fiscal benefits across states is required from the standpoint of economic efficiency. The estimation of these net benefits is best done by a comparative analysis of taxing and spending behavior of state and local governmental units. Various income concepts do not relate to the taxing practices of the states but merely indicate what they potentially have available for taxation. Fortunately, a representative tax system approach is well suited for such a task. This approach is discussed below.

The Representative Tax System (RTS)

This system measures the fiscal capacity of a state by the revenue that could be raised in that state if the state government employed all of the standard sources at the nationwide average intensity of use.

To estimate equalization entitlements based on a representative tax system approach, information on both the tax bases and tax rates for each state is required. For most revenue sources this information is usually readily available. Then a decision has to be made as to the standard of equalization i.e. whether fiscal capacity of the have-not states should be brought up to the median, arithmatic mean or some other norm based on all states data. As an example, consider arithmatic mean of all states as a standard. Then equalization entitlement for a state say (x) for resource source i could be determined as follows:

$$E^{i} = (POP)_{x} \; \{(PCTB)^{i}_{na} \times t^{i}_{na}\} - \{(PCTB)^{i}_{x} \times t^{i}_{na}\}$$

where E^{i} = equalization entitlement of state from revenue source ^{i}.

POP = Population

$PCTB^{i}$ = Per capita tax base of revenue source i.

t^{i} = national average tax rate of revenue source i.

subscript na = national average

subscript x = State x

The equalization entitlement for a state from a particular revenue source could be negative, positive or zero. These figures would then have to be summed up for all revenue sources considered for equalization and the overall sum would indicate whether a state would receive a positive or a negative entitlement from the interstate revenue sharing pool.

It should be noted that the data on tax bases and tax collections required for the implementation of a RTS are already being published on a regular basis by various departments and agencies of the federal Government. Thus the RTS does not impose any new data requirements and could be implemented using the existing data.

Measurement of Expenditure Needs

Economic theory suggests that an ideal equalization transfers program should also take into consideration the expenditure side of the provincial-local budgetary operations. Many economists have argued for taking expenditure needs and differential unit costs of provision of public services into account. Several countries follow this approach. The following paragraphs examine this issue.

We already noted that the case for equalization rests on differential net fiscal benefits across states. These differentials could arise either due to differences in revenue raising capacity and/or due to differences in the cost of provision of public services. Consider two states with the same revenue raising capacity where the residents have identical tastes for provincial public services but the cost of providing them differs due to supply factors. For example, differences in the degree of urbanization, population density and age distribution among states will have significant effects upon the relative costs of public services. The degree of urbanization can effect the costs of salaries and wages, land, and construction, as well as particular services such as pollution control, public transit, police and fire protection and the provision of utilities. Population density will effect the costs of providing public utilities and will also effect the costs of highways. Age distribution will influence the need for school rooms, hospitals, recreational facilities etc.

These differential costs are likely to cause substantial variations across the two jurisdictions in the level and mix of public goods provided, resulting in differential net fiscal benefits. A strong case for equalization can, therefore, be established on both efficiency and equity grounds to compensate for cost differentials that give rise to differential net fiscal benefits.

The fiscal federalism literature, in general, treats differential costs as synonymous with differential needs but it must be noted that some cost differences may arise due to deliberate policy decisions of the provincial governments and thus do not constitute need. Compensation for unavoidable cost variations resulting from differences in the costs of inputs and from dissimilar input-output relationships which might arise because of distance from sources of supply and geographic features can be justified on equity grounds. Equalization grants should offset such inherent disabilities but should disregard cost differences due to differences in efficiency with which resources are used. These questions do not pose any special difficulties for a regression based approach to the measurement of expenditure needs.

Expenditure need is more difficult to define and derive than a measure of fiscal capacity. The difficulties involved in measuring expenditure need are substantially higher than those encountered in using a representative tax system to measure fiscal capacity. They include defining an equalization standard, determining differential costs due to differing input-output relationships, nature of service areas, composition of population and isolating need/cost differentials due to differential tastes or policy decisions as distinct from inherent cost disabilities. A further concern would be the susceptibility of the grant shares based on need factors to strategic behavior on the part of the recipient states. The experience of Australia, West Germany, Switzerland with federal unconditional transfers, of the U.S. with highway grants and of the Canadian states with provincial-municipal transfers, indicates that these concerns can be addressed and expenditure need incorporated in formula grants in a manner acceptable to both the donor(s) and the recipients.

Some empirical questions are resolved easily. For example, to avoid problems associated with subjective standards such as 'minimum service levels' or 'reasonable levels of services', expenditure need could be defined as "the cost of supplying average performance levels for the existing mix of provincial - local programs". Relative expenditure needs could then be determined empirically either using direct imputation methods or by adopting a simpler approach using a representative expenditure system. The latter approach is preferred for its objectivity and ease of computation. Furthermore, it enables the analyst to derive expenditure need measures based on actual observed behavior of the provincial-local governments under study rather than basing it on ad hoc value judgements. The relative weights to be assigned to various need factors in the representative expenditure system could be determined by econometric analysis. This method requires specification of determinants for each service category to be analyzed. These determinants would include relevant fiscal capacity and public services need variables. The estimating equation so specified would then yield quantitative estimates as to the independent influence of each specified factor in determining the spending level for that category of public service. This information could also be analyzed further to determine as to what each state would have actually spent if it had average fiscal capacity and average tastes but actual need factors.

More specifically, the formula for equalization entitlement on account of expenditure classification i for state x could be stated as follows:

$$EE^i_x = (POP)_x \{(PCSE)^i_x - (PCSE)^i_{na}\}$$

where

EE^i_x = Equalizataion entitlement on account of expenditure classification i for state x

POP_x = Population of state x

$(PCSE)^i_x$ = Per Capita standardized expenditure by state x on expenditure classification (i). This is the estimated expenditure which a state would have spent if it had national average fiscal capacity but its actual need factors.

$(PCSE)^i_{na}$ = National average per capita standardized expenditure on expenditure classification i. This is the estimated expenditure for all states based on national average values of fiscal capacity and need factors.

Equalization entitlement on account of a particular expenditure classification could be positive, negative or zero. These entitlements would have to be summed up for all expenditure categories considered for equalization.

Overall entitlement of a state based on a comprehensive system of equalization would be determined by summation of its separate entitlements from the Representative Tax System (RTS) and the Representative Expenditure System (RES). Only the states with positive entitlements would be eligible to receive transfers in equivalent or some fraction of the total amount (the fraction to be determined by the centre depending upon the availability of funds) from the centre.

A phased approach to a comprehensive equalization may be well advised. Initially, a representative tax system could be implemented for a five year period. Then depending upon this experience a representative expenditure system could be brought in to complement the RTS in the next five years. A joint Federal - States Fiscal Arrangements Sub-Committee may be instituted to monitor the working of the system closely.

The Equalization Standard

Equalization of net fiscal benefits requires that we adopt an explicit standard of equalization. The specified standard would be the level to which each state would be entitled to be raised to enable it to provide public sector net benefits per household comparable with other states. Simplicity dictates choosing either the arithmatic mean or the median of the governmental units involved as the standard. Arithmatic mean provides a good representation of the data in the absence of extreme values. In the event that the sample values have wide range, the median or the arithmatic mean after elimination of extreme values would provide a better representation of the sample. Mean is to be preferred over the median, however, for ease of computation.

Costs and Financing

An ideal fiscal equalization program would be self-financing. The member governments are assessed both positive and negative entitlements which sum to zero. The federal government merely acts as conduit for such a policy. If such an interstatal revenue sharing pool in practice would create, administrative difficulties, then the equalization program could be financed out of general federal revenues which are in part derived from the equalization receiving states.

Other Considerations

So far the discussion has focussed on the basic elements of an equalization program. Several related aspects of equalization transfers are considered in the following subsections.

Unconditionality

There is a general consensus in the academic literature that an equalization system should enable state governments to provide a standard bundle of public services if the government imposes a standard level of taxes on the bases at its disposal. The state governments (or certainly their citizens) should, however, be permitted to substitute lower rates of taxation for higher level of services and vice versa. As such the equalization payments should be in the nature of unconditional grants having only income effects. Service areas in which there appears a good reason to actually set minimum national standards are better handled by conditional grants and shared cost programs. It should be noted that by raising a state's fiscal capacity, the unconditional equalization grants enable the poor states to more easily participate in the shared cost programs.

Tax Effort

Incorporating tax effort into the formula for determining equalization would involve making the equalization entitlement a function of the ratio of actual tax collections in a state to its own tax base. Potentially non-recipient states may wish to see such a factor incorporated into the program to prevent states with a positive fiscal deficiency in an area from collecting equalization payments even if they may not levy a tax in the area. Potentially recipient states may wish to see tax effort incorporated because without it, extra tax effort on their part will be relatively unproductive compared to a wealthy state.

Problems exist with incorporating tax effort into the program. First, the inclusion of tax effort will cause the program to depart from its unconditional nature. A state should be free to substitute grant funds for revenue from own sources. Similarly, if a state raises taxes in order to provide a bundle of services that is higher than the standard it should not receive equalization for doing so, e.g. other states should not have to pay most of the cost if a state decides to paint its roads. Incorporating tax effort would tie the federal government to expenditure philosophies of the various states. A problem also arises in that some states do not have tax bases in all areas. Incorporating tax effort may also encourage the employment of strategy by a state. Another major problem associated with the inclusion of tax effort in the formula is that in view of the differential abilities of the states to export taxes, the measurement of tax effort would be crude. Inclusion of tax effort in the formula could also result in increase in taxes on the poor states. In view of the above considerations, it appears that a program of equalization payments would not be improved by including tax effort.

Stabilization Effects

If the equalization payments in Brazil were to be based upon relative measures of fiscal capacity, they will be expected to have a stabilizing effect upon state revenues. The level of payments will move in a direction opposite to that in which the states own revenue raising capacity moves. Maximum stabilization of state-local revenues will occur when the payments are based on all revenue sources, a national average standard of equalization is used, cyclical fluctuations in provincial economies are small and the time lag in calculating the grants is relatively short. When any large component of the total base is quite volatile, such as natural resource revenues, the destabilizing effects can be quite large and some sort of averaging formula would have to be employed to ease the difficulties associated with provincial budgeting in the face of uncertainty.

Strategy

Strategy refers basically to the actions that provincial governments can take to affect the level of payments they receive. A scheme that enables a state to employ strategy must be considered undesirable because in general such extra payments received may not have any relation with actual disparities. For example, a program employing tax effort could enable states to raise their payments by imposing heavy taxes in areas in which they have a below average base. This problem, however, is much less serious in practice than it might appear as the room for additional taxation from sources in which the potentially "have-not" states are not well-endowed would be extremely limited.

Concluding Remarks

Economic theory provides a strong rationale for fiscal decentralization as it promotes efficient provision of public services by promoting a better match of these services with citizens preferences; by minimizing the cost of political decision making and by encouraging political accountability and by addressing regional and local concerns. In Brazil such a program could be helpful addressing regional equity and stabilization objectives of the federal government.

APPENDIX B

OPERATIONAL MECHANISMS OF CONVENIOS

The provisions of convenios vary by functional objectives. There are some general procedures, however, that should be observed when forming a convenio (Decreto-lei #200 of Feb/2/67, 2300 of Nov/11/86, 93872 of Dec/23/86.)

A convenio is legally defined (200/67) as a way to decentralize the activities of the federal government by delegation of powers and funds for the conduction of federal projects (projects under the responsibility of the Union) to the local authorities where the project is to take place. The source of the funds can vary in many ways. Usually the funds come as supplemental credits or as recursos vinculados (earmarked resources). In the first case, the federal government uses the excess in tax collections to supplement the funds allocated to convenios by more than the other funds. As far as earmarked sources are concerned, these would be the FINSOCIAL, PIN/PROTERRA, education salary, and lotteries, as well as the share of the special fund (FE) for which there is no fixed distribution criteria.

Stages for the implementation of a convenio: proposal, authorization, "empenho", delivery of funds, monitoring and control.

For each petition filed by a state/local government, there is a separate process. In the petition there must be a justification and, in most cases, a detailed plan for the use of the funds (schedule of tasks and expenses).

The petition is examined by a technical committee. This analysis checks for the compatibility of the petition with the activities of the ministry.

Once the technical committee gives a favorable appreciation, the petition is forwarded to the general secretary of the ministry so the value of the convenio can be approved and so that it can be verified whether funds are available.

A convenio contract has the following general characteristics: definition of the authorities involved, the object of the convenio, the duties of each part, a schedule for the delivery of the funds, deadlines and conditions for alteration. The convenio is usually signed in a public ceremony in the state capital.

Convenios larger than Cz$ 2 million must be published at the Diario Official. (The official daily publication of the federal government.

For each convenio there exists a checking account at Banco de Brasil where to federal government deposits the funds according to the predetermined schedule. There are then hundreds of such accounts. The beneficiary (state or local government) should report to the federal government on the progress and utilization of the funds. However, this not always occurs since some local governments lack the personnel and the expertise to submit the detailed reports asked by the federal government. As far as the employment of the funds is concerned, however, the beneficiary has to at least present the statements of the above mentioned account as a way to document the proper use of the funds. The misuse of such funds constitutes an act subject to criminal charges. Usually it is only at the end, after the last withdrawal is made that the federal government asks for receipts on the expenses made,

In many cases the beneficiary has also to commit some of their own revenues to the convenio, but there are no formal criteria for such matching of funds. A complete and detailed account of the transfers received through the convenio is not always submitted to the appropriate state/local legislature so it is not always the case that one can find them in the official accounts of states and municipalities as inter government transfers.

It is also very common to have changes in the original terms of the convenio or to readjust predetermined values. If the likelihood of these changes was not foreseen when the convenio was signed than a new convenio has to be made. In many cases, values need to be readjusted due to the high rate of inflation and to the time it takes for the actual delivery of funds. To avoid this problem some local/state governments overstate the values of their convenios.

Source: Afonso (1989).

APPENDIX C

THE ADMINISTRATIVE PROCESS OF SUDS

1. Mechanisms of Transfers of Funds

The funds transferred from the INAMPS (National Institute for Medical Assistance of the Social Security System) to the states come from the Fundo de Previdencia Assistencia Social (FPAS). This fund is constituted by the Social Security contributions of employers and employees (deducted from pay roll).

The amount to be transferred is determined on a yearly basis by the "termos aditivos" (additional agreements) as established by the convenios.

Delivery of Funds from INAMPS to States

INAMPS	=	once the Additional Agreement (TA) is signed, it makes the transfer of funds in monthly installments according to the schedule of withdrawals (CD-see below) and to the availability of funds in its budget.
BANCO DO BRASIL	=	funds are deposited in earmarked accounts.
States	=	uses part of the funds and transfers the rest to the municipalities. States will receive the 4th, 7th, 10th and installments conditioned on the approval of the rendering of account (PC) concerning the last quarter. Consolidates the PCs of the municipalities.
INAMPS/Office	=	has 15 days to evaluate the PC.
DOF/INAMPS	=	approves the TA elapses, they have 30 days to present a consolidated PC for the entire year. The signing of a new TA is conditioned on the approval of the PC.

2. Matching of Funds

As it was noted before, POI is the process by which resources are allocated to the providers of health-care. There is some matching of funds here since all levels of government participate in the process with some of their own revenues. There seems to exist no clear and predetermined matching condition, however. What follows is a description of the way the process works:

CIMS (municip)	=	prepares the plan of application of funds (PA) and the schedule of withdrawal of funds (CD) for the coming year. PA and CD should discriminate between the allocation of own revenues and transferred revenues.
CMS (municip)	=	evaluates and approves the PA/CD. Sends them back to CIMS.
CIMS	=	has up to September 30 to send the PA/CD to the state (CIS).
CIS	=	consolidates the state PA/CD with the many different municipal ones. The consolidated report will indicate the real growth in the participation of states in the financing of SUDS and the identification of funds according to their source: municipality, state, INAMPS, and other.
CES	=	evaluates and approves the PA/CD. Sends them back to CIS.
CIS	=	has up to November 30 to send them to the Regional Office of INAMPS.
INAMPS	=	analyses the PA/CD. Its main role is to provide orientation to CIMS and CIS in the preparation of the PA/CD. Sends the PA/CD to DOF/INAMPS.
DOF/INAMPS	=	analyses and consolidates the PC/CDs from all states. It may ask the states to change them. Prepares the POI which is the unified health budget for the nation for the coming year. Prepares the "termos Aditivos" to be signed every year by States and Municipalities. Submits everything to the approval of CIPLAN. Has up to December 10 to send approval notice to offices and states.
CIPLAN	=	Approves the "Termos Aditivos."
INAMPS Offices	=	States and municipalities sign the "Termos Aditivos" (TA). The TA must specify the amounts of co-participation of the parties involved.
States/Mun.	=	management of the budget through SES and SMS, respectively.

Source: Afonso (1989).

Table A.1
FEDERAL CONDITIONAL TRANSFERS BY FUNCTION AND BY LEVEL OF GOVERNMENT

(1987)

(in percent)

Functions	Functional Distributions			Distributions between levels of government			Intergovernment capital transfers made through the special investments account (as a % of ...)		
	States	Mun.	Total	States	Mun.	Total	Special Investments	Other inter-gov. capital transfers	Other inter-gov. transfers
Administration and Planning	71.2	72.3	71.7	56.4	43.6	100.0	69.9	1,220.3	165.9
Agriculture	10.5	1.4	6.6	90.6	9.4	100.0	40.5	1,364.0	87.8
Regional Development	11.8	7.9	10.1	66.1	33.9	100.0	53.1	439.3	405.7
Energy and Minerals	0.0	1.0	0.4	0.0	100.0	100.0	0.4	-	13.9
Housing and Urban Development	4.6	16.8	9.9	26.2	73.8	100.0	30.1	107.4	107.4
Health and Sanitation	1.9	0.5	1.3	82.3	17.7	100.0	34.1	17.5	5.8
Labor	0.0	0.0	0.0	76.9	23.1	100.0	19.6	184.1	72.7
Total	100.0	100.0	100.0	56.7	43.3	100.0	37.4	302.6	70.7

Source: "Balancos Gerais da Uniao - 1987", MINIFAZ

- Include Capital Transfers, made in the Special Investments Account, to States and DF, and to Municipalities
- Investments in Special Execution: Account 4130 in the BGU
- Intergovernment Capital Transfers: Account (4320)
- Intergovernment Current Transfers: Account (3220)
- Other Transfers = (3220 + 4320) minus Federal Tax Transfers
- Intergovernment Capital Transfers made to States in the Special Investments: Account 4230.47
- Intergovernment Transfers to Mun. in the Special Investment Account 4730.48.

Table A.2
BRAZIL: FEDERAL CONDITIONAL TRANSFERS TO STATES AND MUNICIPALITIES BY FUNCTION

(1983-1987)

(percent)

	Agriculture	Regional Development	Education & Culture	Energy	Housing & Urban Development	Health & Sanitation	Transportation	Other Functions	Total
983	4.5	34.4	15.8	6.0	1.7	12.8	0.0	24.9	100.0
984	4.7	22.8	18.4	9.2	1.2	14.0	0.0	29.7	100.0
985	1.4	12.8	26.0	7.1	0.7	16.4	0.0	35.6	100.0
986	4.8	16.5	19.0	4.5	14.7	13.1	0.1	27.3	100.0
987	5.3	1.8	22.4	2.3	6.5	16.2	0.6	45.0	100.0

ource: Sec. Progr. Financeira/STN e "Balancos Gerais da Uniao", MINIFAZ
eflator: IGP-DI medio (FGV)

ther Transfers = Intergovernmental Transfers minus Federal Tax Transfers

ther Functions = Legislative, Judiciary, Planning and Administration, Defense, Commerce and Industry.

Table A.3
DISTRIBUTION OF FEDERAL TRANSFERS THROUGH THE CONVENIOS TO STATES AND MUNICIPALITIES BY THE GRANTING FEDERAL MINISTRY

1985-86

(percent)

Regions/ States	Planning	Education			Health			Urban Development	Finance	Others	Total
		Cash	In-kind	Total	Cash	In-kind	Total				
Acre	43.5	7.4	4.0	11.5	2.7	0.8	3.4	0.7	38.4	2.5	100.0
Amazonas	52.4	18.7	11.0	29.7	4.4	4.4	8.8	8.5	0.0	0.6	100.0
Para	32.2	28.5	17.2	45.6	3.6	6.1	9.7	5.1	0.0	7.4	100.0
Rondonia	13.2	2.6	1.2	3.8	0.5	0.4	0.9	0.8	78.5	2.7	100.0
Amapa	53.2	20.0	17.4	37.4	0.0	3.5	3.5	4.7	0.0	1.2	100.0
Roraima	44.8	18.6	10.0	27.9	4.9	0.9	5.8	2.5	0.0	18.9	100.0
Maranhao	45.3	24.9	14.7	39.6	2.2	2.9	5.2	4.3	0.0	5.7	100.0
Piaui	41.4	27.1	12.2	39.3	6.0	3.1	9.1	6.9	0.0	3.3	100.0
Ceara	21.4	33.9	23.2	57.0	4.5	6.9	11.4	4.8	0.0	5.3	100.0
R.Gde.Norte	27.9	29.4	14.4	43.8	11.5	6.1	17.6	6.8	0.0	4.0	100.0
Paraiba	31.5	29.3	16.0	45.3	5.0	4.6	9.6	10.4	0.0	3.3	100.0
Pernambuco	12.5	31.6	16.2	47.8	6.9	6.2	13.1	22.5	0.0	4.2	100.0
Alagoas	31.0	26.4	16.5	42.9	8.2	.7	14.9	8.2	0.0	3.0	100.0
Sergipe	39.0	23.3	13.9	37.2	7.7	4.1	11.9	9.2	0.0	2.6	100.0
Bahia	20.5	30.7	20.3	50.9	5.7	6.8	12.5	9.5	0.0	6.6	100.0
Mato Grosso	54.7	14.7	7.6	22.4	3.4	1.5	4.9	8.7	5.1	4.2	100.0
M. Grosso Sul	38.4	20.4	14.9	35.3	4.1	3.6	7.7	11.3	0.0	7.2	100.0
Goias	24.8	30.9	13.9	44.8	4.2	6.0	10.2	11.4	0.0	8.8	100.0
Distrito Fedl.	92.1	2.9	1.0	3.9	0.2	2.3	2.5	1.3	0.0	0.27	100.0
Minas Gerais	2.8	37.4	27.5	64.9	5.5	3.8	9.3	11.5	6.0	11.4	100.0
Espirito Santo	42.2	20.2	13.0	33.2	3.7	2.8	6.5	13.4	0.0	4.7	100.0
Rio Janeiro	1.8	24.9	3.5	28.4	2.7	6.8	9.5	23.1	33.2	4.1	100.0
Sao Paulo	7.9	26.4	7.0	33.3	9.4	5.4	14.8	33.1	0.0	10.8	100.0
Parana	1.5	34.6	25.4	60.0	2.8	4.8	7.6	14.4	0.0	16.4	100.0
Sta. Catarina	13.9	37.6	18.3	56.0	3.2	4.0	7.1	14.7	0.0	8.8	100.0
Rio Gde. Sul	2.7	40.7	20.6	61.3	4.2	4.3	8.5	16.2	0.0	11.3	100.0
NORTH	25.7	10.0	5.8	15.8	1.8	2.0	3.7	2.6	48.6	3.6	100.0
NORTHEAST	29.1	28.7	16.6	45.3	5.7	5.1	10.8	10.2	0.0	4.6	100.0
CENTRE-WEST	74.6	9.2	4.7	13.9	1.4	2.8	4.2	4.4	0.6	2.3	100.0
SOUTHEAST	9.9	29.4	15.0	44.4	5.3	4.6	9.9	19.4	8.0	8.4	100.0
SOUTH	5.2	37.4	21.9	59.3	3.4	4.4	7.8	15.12	0.0	12.5	100.0
BRAZIL	34.9	21.2	12.0	33.1	3.6	3.8	7.4	9.3	10.2	5.1	100.0

Source: Silvia Paiva, STN/MINIFAZ, Results from a special survey of government agencies.

Table A4

<u>OVERALL IMPACT OF THE NEW FEDERALISM</u>

<u>ON STATE AND MUNICIPAL FINANCES:</u>

<u>States of Pará and Paraná</u>

	Fiscal Impact on Available Revenues - 1993
Pará	
State	17.70%
Municipalities	31.20% *
Paraná	
State	17.35%
Municipalities	35.65%

Sources: - Secretaria de Estado da Fazenda do Paraná - Coordenação de Assuntos Econômicos.-

- Barrato, G. (1989) **Impacto da Reforma Tributária na Receita Disponivel do Paraná.** (manuscript)

- Condurú Jr., R. P. (1988). **Os Ganhos Tributários do Estado e Municipios Paraenses.** <u>Pará Desenvolvimento</u> No. 24

(*) Average Impact on all Brazilian municipalities as reported by Condurú (1988)

Table A.5
1987 - FEDERAL TAX TRANSFERS RECEIVED BY BRAZILIAN MUNICIPALITIES

(Values in Current NCz$ Thousands)

Federal Unit	CURRENT TRANSFERS (FPM)			CAPITAL TRANSFERS (FPM)			TOTAL FEDERAL TAX TRANSFERS (FPM)		
	value	per capita	% of total	value	per capita	% of total	value	per capita	% of total
Rondonia	508	0.52	0.73%	163	0.17	0.80%	671	0.68	0.75%
Acre	413	1.07	0.59%	109	0.28	0.54%	522	1.35	0.58%
Amazonas	533	0.29	0.77%	220	0.12	1.09%	753	0.41	0.84%
Roraima	234	2.14	0.34%	3	0.03	0.01%	237	2.16	0.26%
Para	1,784	0.39	2.56%	972	0.21	4.80%	2,756	0.60	3.07%
Amapa	241	1.04	0.35%	90	0.39	0.44%	331	1.42	0.37%
NORTH	3,713	0.46	5.33%	1,557	0.19	7.69%	5,270	0.65	5.86%
Maranhao	2,246	0.46	3.23%	1,108	0.23	5.47%	3,354	0.69	3.73%
Piaui	1,374	0.55	1.97%	886	0.35	4.37%	2,260	0.90	2.51%
Ceara'	3,893	0.64	5.59%	562	0.09	2.77%	4,455	0.73	4.96%
R Grande Norte	2,011	0.92	2.89%	536	0.24	2.65%	2,547	1.16	2.83%
Paraiba	2,369	0.76	3.40%	818	0.26	4.04%	3,187	1.03	3.55%
Pernambuco	3,664	0.52	5.26%	902	0.13	4.45%	4,566	0.65	5.08%
Alagoas	1,551	0.67	2.23%	487	0.21	2.40%	2,038	0.89	2.27%
Sergipe	1,348	1.00	1.94%	87	0.06	0.43%	1,435	1.07	1.60%
Bahia	5,405	0.49	7.76%	2,546	0.23	12.57%	7,951	0.72	8.85%
NORTHEAST	23,861	0.59	34.28%	7,932	0.20	39.16%	31,793	0.78	35.38%
Minas Gerais	7,927	0.52	11.39%	4,640	0.31	22.91%	12,567	0.83	13.98%
Espirito Santo	1,012	0.42	1.45%	665	0.28	3.28%	1,677	0.70	1.87%
Rio de Janeiro	2,278	0.17	3.27%	520	0.04	2.57%	2,798	0.21	3.11%
Sao Paulo	11,486	0.37	16.50%	1,377	0.04	6.80%	12,863	0.42	14.31%
SOUTHEAST	22,703	0.37	32.62%	7,202	0.12	35.55%	29,905	0.48	33.28%
Parana	5,395	0.63	7.75%	1,071	0.13	5.29%	6,466	0.76	7.20%
Santa Catarina	3,261	0.77	4.68%	465	0.11	2.30%	3,726	0.88	4.15%
R Grande Sul	5,049	0.58	7.25%	734	0.08	3.62%	5,783	0.66	6.44%
SOUTH	13,705	0.64	19.69%	2,270	0.11	11.21%	15,975	0.74	17.78%
M Grosso Sul	1,146	0.68	1.65%	154	0.09	0.76%	1,300	0.78	1.45%
Mato Grosso	954	0.60	1.37%	418	0.26	2.06%	1,372	0.87	1.53%
Goias	3,527	0.76	5.07%	724	0.16	3.57%	4,251	0.92	4.73%
Distrito Federal									
CENTER WEST	5,627	0.59	8.08%	1,296	0.14	6.40%	6,923	0.72	7.70%
BRAZIL	69,609	0.49	100.00%	20,257	0.14	100.00%	89,866	0.64	100.00%

Source: MINIFAZ/SEF

Table A.6
1987 - NON-TAX TRANSFERS RECEIVED BY BRAZILIAN MUNICIPALITIES

(Values in Current NCz$ Thousands)

Federal Unit	CURRENT ST. & FED NON-TAX TRANSFERS value	per capita	% of total	CAP. ST. & FED NON-TAX TRANSFERS value	per capita	% of total	TOTAL ST. & FED NON-TAX TRANSFERS value	per capita	% of total
Rondonia	339	0.35	1.55%	60	0.06	0.32%	399	0.41	0.98%
Acre	42	0.11	0.19%	204	0.53	1.09%	246	0.64	0.60%
Amazonas	127	0.07	0.58%	1,272	0.69	6.77%	1,399	0.76	3.44%
Roraima	20	0.18	0.09%	33	0.30	0.18%	53	0.48	0.13%
Para	411	0.09	1.87%	451	0.10	2.40%	862	0.19	2.12%
Amapa	26	0.11	0.12%	23	0.10	0.12%	49	0.21	0.12%
NORTH	965	0.12	4.40%	2,043	0.25	10.88%	3,008	0.37	7.39%
Maranhao	382	0.08	1.74%	1,379	0.28	7.34%	1,761	0.36	4.33%
Piaui	221	0.09	1.01%	857	0.34	4.56%	1,078	0.43	2.65%
Ceara'	803	0.13	3.66%	561	0.09	2.99%	1,364	0.22	3.35%
R Grande Nor	278	0.13	1.27%	133	0.06	0.71%	411	0.19	1.01%
Paraiba	216	0.07	0.99%	266	0.09	1.42%	482	0.16	1.18%
Pernambuco	790	0.11	3.60%	671	0.10	3.57%	1,461	0.21	3.59%
Alagoas	198	0.09	0.90%	96	0.04	0.51%	294	0.13	0.72%
Sergipe	263	0.20	1.20%	553	0.41	2.95%	816	0.61	2.00%
Bahia	712	0.06	3.25%	1,062	0.10	5.66%	1,774	0.16	4.36%
NORTHEAST	3,863	0.10	17.62%	5,578	0.14	29.71%	9,441	0.23	23.20%
Minas Gerais	1,328	0.09	6.06%	2,094	0.14	11.15%	3,422	0.23	8.41%
Espirito San	219	0.09	1.00%	235	0.10	1.25%	454	0.19	1.12%
Rio de Janei	1,631	0.12	7.44%	242	0.02	1.29%	1,873	0.14	4.60%
Sao Paulo	7,720	0.25	35.21%	2,433	0.08	12.96%	10,153	0.33	24.95%
SOUTHEAST	10,898	0.18	49.71%	5,004	0.08	26.65%	15,902	0.26	39.07%
Parana	2,056	0.24	9.38%	1,270	0.15	6.76%	3,326	0.39	8.17%
Santa Catari	1,100	0.26	5.02%	1,225	0.29	6.52%	2,325	0.55	5.71%
R Grande Sul	1,497	0.17	6.83%	679	0.08	3.62%	2,176	0.25	5.35%
SOUTH	4,653	0.22	21.22%	3,174	0.15	16.90%	7,827	0.36	19.23%
M Grosso Sul	368	0.22	1.68%	454	0.27	2.42%	822	0.49	2.02%
Mato Grosso	473	0.30	2.16%	1,251	0.79	6.66%	1,724	1.09	4.24%
Goias	705	0.15	3.22%	1,272	0.27	6.77%	1,977	0.43	4.86%
Distrito Fed									
CENTER WEST	1,546	0.16	7.05%	2,977	0.31	15.86%	4,523	0.47	11.11%
BRAZIL	21,925	0.15	100.00%	18,776	0.13	100.00%	40,701	0.29	100.00%

Source: MINIFAZ/SEF

Table A.7
1987 - SUMMARY OF INTERGOVERNMENTAL TRANSFERS RECEIVED BY BRAZILIAN MUNICIPALITIES

(Values in Current NCz$ Thousands)

Federal Unit	TOTAL FED AND ST. TAX TRANSFERS			OTHER ST. & FED TRANSFERS			TOTAL FED. AND STATE TRANSFERS		
	value	per capita	% of total	value	per capita	% of total	value	per capita	% of total
Rondonia	948	0.97	0.45%	399	0.41	0.98%	1,347	1.37	0.53%
Acre	579	1.50	0.27%	246	0.64	0.60%	825	2.14	0.33%
Amazonas	1,949	1.06	0.92%	1,399	0.76	3.44%	3,348	1.82	1.32%
Roraima	268	2.45	0.13%	53	0.48	0.13%	321	2.93	0.13%
Para	3,541	0.77	1.67%	862	0.19	2.12%	4,403	0.96	1.74%
Amapa	379	1.63	0.18%	49	0.21	0.12%	428	1.84	0.17%
NORTH	7,664	0.94	3.60%	3,008	0.37	7.39%	10,672	1.31	4.21%
Maranhao	3,668	0.75	1.73%	1,761	0.36	4.33%	5,429	1.12	2.14%
Piaui	2,676	1.06	1.26%	1,078	0.43	2.65%	3,754	1.49	1.48%
Ceara'	6,251	1.02	2.94%	1,364	0.22	3.35%	7,615	1.24	3.01%
R Grande Norte	3,115	1.42	1.46%	411	0.19	1.01%	3,526	1.61	1.39%
Paraiba	3,897	1.26	1.83%	482	0.16	1.18%	4,379	1.41	1.73%
Pernambuco	7,757	1.11	3.65%	1,461	0.21	3.59%	9,218	1.32	3.64%
Alagoas	2,984	1.30	1.40%	294	0.13	0.72%	3,278	1.42	1.29%
Sergipe	1,957	1.45	0.92%	816	0.61	2.00%	2,773	2.06	1.09%
Bahia	13,170	1.19	6.19%	1,774	0.16	4.36%	14,944	1.35	5.90%
NORTHEAST	45,475	1.12	21.39%	9,441	0.23	23.20%	54,916	1.35	21.68%
Minas Gerais	24,877	1.65	11.70%	3,422	0.23	8.41%	28,299	1.87	11.17%
Espirito Santo	3,693	1.55	1.74%	454	0.19	1.12%	4,147	1.74	1.64%
Rio de Janeiro	14,823	1.12	6.97%	1,873	0.14	4.60%	16,696	1.26	6.59%
Sao Paulo	64,054	2.07	30.12%	10,153	0.33	24.95%	74,207	2.40	29.29%
SOUTHEAST	107,447	1.74	50.53%	15,902	0.26	39.07%	123,349	2.00	48.69%
Parana	14,382	1.69	6.76%	3,326	0.39	8.17%	17,708	2.08	6.99%
Santa Catarina	8,586	2.03	4.04%	2,325	0.55	5.71%	10,911	2.58	4.31%
R Grande Sul	15,683	1.79	7.38%	2,176	0.25	5.35%	17,859	2.04	7.05%
SOUTH	38,651	1.80	18.18%	7,827	0.36	19.23%	46,478	2.16	18.35%
M Grosso Sul	3,184	1.90	1.50%	822	0.49	2.02%	4,006	2.39	1.58%
Mato Grosso	2,986	1.89	1.40%	1,724	1.09	4.24%	4,710	2.98	1.86%
Goias	7,228	1.56	3.40%	1,977	0.43	4.86%	9,205	1.98	3.63%
Distrito Federal									
CENTER WEST	13,398	1.40	6.30%	4,523	0.47	11.11%	17,921	1.87	7.07%
BRAZIL	212,635	1.50	100.00%	40,701	0.29	100.00%	253,336	1.79	100.00%

Source: MINIFAZ/SEF

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